RECIRCULATED DRAFT
Environmental Impact Report
Trails at Santiago Creek Specific Plan
City of Orange, Orange County, California
State Clearinghouse No: 2017031020

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Attachment: 7
Environmental Impact Report
Mabury/Santiago Creek subdivide
Planning Commission 07/20/2020
On March 16, 2017, the City of Orange conducted a Scoping Meeting, in accordance with THE STATE CEQA GUIDELINES, for the Trails at Santiago Creek Project, (“Project”). The Project described in the Notice of Preparation (NOP) consisted of approximately 150 residential dwellings configured within various development plan alternatives. The various land use scenarios were based on the City’s approval of a Pre-Development Agreement, (“PDA”) on October 11, 2016. The PDA represented several months of meetings and discussions with community, numerous representatives from Orange Park Acres Homeowners Association (“OPA”), Mabury Ranch Homeowners Association and The Reserve Homeowners Association. An essential component of the PDA and working agreement with the community representatives was the temporary suspension of all backfill and stockpiling operations at the Sully-Miller sand and gravel operation, effective September 15, 2015. Based on the PDA, the City obtained input at the Scoping meeting. The most significant concerns expressed by the community at the Scoping meeting pertained to traffic on East Santiago Canyon Road and Cannon Road; the preservation of Santiago Creek as a greenway, open space, flooding and elimination of the current sand and gravel operation.

An extensive 3-year community outreach collaboration effort to address concerns related to traffic on East Santiago Canyon Road and Cannon Street, the preservation of Santiago Creek as a greenway open space, flooding, and elimination of the current sand and gravel operation, as well as other matters related to the Property Owner resulted in the following modifications, reductions, and changes to the original proposal commitments.

1. The Specific Plan (Appendix Q of the RDEIR) and associated project accommodates a maximum number of 128 single-family detached lots located in the southerly portion of the property and will consist of housing types and lot sizes compatible with the surrounding neighborhoods as depicted in the Trails at Santiago Creek Specific Plan, Exhibits 3.1-3.4 and consistent with the development standards and guidelines set forth in the Specific Plan.

2. The implementation of the Specific Plan and associated project will fund up to $1,000,000.00 for traffic improvements to widen East Santiago Canyon Road and restripe Cannon Road prior to the issuance of the 1st certificate of occupancy of any housing units for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.1, Areas of Traffic Congestion—Pre-Project, Exhibit 4.2, Area of Project Related Traffic Improvements, and Exhibit 4.3, Additional Project Related Traffic Improvements, and Section 4.2.3, Circulation Plan.

3. The implementation of the Specific Plan and associated project will fund approximately up to a maximum of $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway. Said Improvements are to be completed or funded prior to the issuance of the 60th Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Section 4.2.4, Trails, Open Space and Recreation Plan, and Exhibit 4.14, Preliminary Greenway, Open Space and Trails Plan.

4. The implementation of the Specific Plan and associated project will fund $1,000,000.00 to be used for in local area-wide equestrian trail purposes prior to the issuance of the first Certificate of Occupancy for the Project.
5. The implementation of the Specific Plan and associated project will finance and fund the City’s acquisition of the Ridgeline Property consisting of which will provide the community an additional approximately fifty (50) acres of public open space to the issuance of the first Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.4, Sully Miller, Arena and Ridgeline Properties.

6. The implementation of the Specific Plan and associated project will provide $2,000,000.00 for equestrian and recreational purposes in the East Orange Area as determined by the City prior to the issuance of the first Certificate of Occupancy for the Project.
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<th>Acronym</th>
<th>Description</th>
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<tr>
<td>µg/m³</td>
<td>micrograms per cubic meter</td>
</tr>
<tr>
<td>AAQS</td>
<td>Ambient Air Quality Standards</td>
</tr>
<tr>
<td>AB</td>
<td>Assembly Bill</td>
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<tr>
<td>ACHP</td>
<td>Advisory Council on Historic Preservation</td>
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<tr>
<td>ACM</td>
<td>asbestos-containing material</td>
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<td>ADA</td>
<td>Americans with Disabilities Act</td>
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<tr>
<td>ADT</td>
<td>average daily traffic</td>
</tr>
<tr>
<td>af</td>
<td>acre-foot</td>
</tr>
<tr>
<td>AFY</td>
<td>acre-feet per year</td>
</tr>
<tr>
<td>AIC</td>
<td>Archaeological Information Center</td>
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<tr>
<td>APE</td>
<td>Area of Potential Effect</td>
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<td>APN</td>
<td>Assessor’s Parcel Number</td>
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<td>California Air Resources Board</td>
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<tr>
<td>AST</td>
<td>aboveground storage tank</td>
</tr>
<tr>
<td>ATCM</td>
<td>Airborne Toxic Control Measures</td>
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<tr>
<td>BMP</td>
<td>Best Management Practice</td>
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<tr>
<td>BVOC</td>
<td>biogenic volatile organic compound</td>
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<tr>
<td>C</td>
<td>Celsius</td>
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<tr>
<td>CAAQS</td>
<td>California Ambient Air Quality Standards</td>
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<td>California Occupational Health and Safety AdminISTRATION</td>
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<td>Clean Air Plan</td>
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<tr>
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<tr>
<td>CFC</td>
<td>chlorofluorocarbon</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<tr>
<td>CH₄</td>
<td>methane</td>
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<tr>
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<td>Congestion Management Plan</td>
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<td>California Natural Diversity Database</td>
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<td>Community Noise Equivalent Level</td>
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<td>----------------------------</td>
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<td>California Native Plant Society</td>
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<tr>
<td>CO</td>
<td>carbon monoxide</td>
</tr>
<tr>
<td>CO₂e</td>
<td>carbon dioxide equivalent</td>
</tr>
<tr>
<td>CPHI</td>
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</tr>
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<td>CPUC</td>
<td>California Public Utilities Code</td>
</tr>
<tr>
<td>dB</td>
<td>decibel</td>
</tr>
<tr>
<td>DOT</td>
<td>United States Department of Transportation</td>
</tr>
<tr>
<td>DPM</td>
<td>diesel particulate matter</td>
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<td>California Department of Toxic Substances Control</td>
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<tr>
<td>EIR</td>
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<tr>
<td>EMS</td>
<td>Emergency Medical Services</td>
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<td>EPA</td>
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<td>ESA</td>
<td>Endangered Species Act</td>
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<td>F</td>
<td>Fahrenheit</td>
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<td>GWh/y</td>
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<td>global warming potential</td>
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<td>Highway Capacity Manual</td>
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<td>hydrofluorocarbon</td>
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<td>California Historic Resources Inventory</td>
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<tr>
<td>I</td>
<td>Interstate</td>
</tr>
<tr>
<td>ISA</td>
<td>International Society of Arboriculture</td>
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<tr>
<td>Lₜₙ</td>
<td>day/night average sound level</td>
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<tr>
<td>Lₑq</td>
<td>equivalent sound level</td>
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<td>LOS</td>
<td>Level of Service</td>
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<td>leaking underground storage tank</td>
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<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
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<td>Metropolitan</td>
<td>Metropolitan Water District of Southern California</td>
</tr>
<tr>
<td>mgd</td>
<td>million gallons per day</td>
</tr>
<tr>
<td>MMI</td>
<td>Modified Mercalli Intensity</td>
</tr>
<tr>
<td>mph</td>
<td>miles per hour</td>
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<td>MRZ</td>
<td>Mineral Resource Zone</td>
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<td>MTS</td>
<td>Metropolitan Transportation System</td>
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<td>Municipal Water District of Orange County</td>
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<td>Acronym</td>
<td>Description</td>
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<td>N₂O</td>
<td>nitrous oxide</td>
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<td>nitrogen dioxide</td>
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<td>NOₓ</td>
<td>nitrogen oxides</td>
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<td>National Pollutant Discharge Elimination System</td>
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<td>ozone</td>
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<td>OCWD</td>
<td>Orange County Water District</td>
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<td>OEHHA</td>
<td>California Office of Environmental Health Hazard Assessment</td>
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<td>OUSD</td>
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<tr>
<td>PCB</td>
<td>polychlorinated biphenyl</td>
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<tr>
<td>pCi/l</td>
<td>picocuries per liter</td>
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<td>perfluorocarbon</td>
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<td>Phase I Environmental Site Assessment</td>
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<td>Phase II ESA</td>
<td>Phase II Environmental Site Assessment</td>
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<td>PMₓ</td>
<td>particulate matter</td>
</tr>
<tr>
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<td>parts per billion</td>
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<td>ppm</td>
<td>parts per million</td>
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<td>PPV</td>
<td>peak particle velocity</td>
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<td>polyvinyl chloride</td>
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<td>Southern California Edison</td>
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<td>SF₆</td>
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<td>trichloroethylene</td>
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<td>TDS</td>
<td>total dissolved solids</td>
</tr>
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<td>Tg</td>
<td>teragram</td>
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<tr>
<td>therms/y</td>
<td>therms per year</td>
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<tr>
<td>TMDL</td>
<td>Total Maximum Daily Load</td>
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<td>TPH</td>
<td>Total Petroleum Hydrocarbons</td>
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<td>United States Army Corps of Engineers</td>
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<td>United States Fish and Wildlife Service</td>
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<td>United States Geological Survey</td>
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<td>underground storage tank</td>
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<td>Urban Water Management Plan</td>
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<td>V/C</td>
<td>volume-to-capacity ratio</td>
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<td>Waste Discharge Requirements</td>
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EXECUTIVE SUMMARY

Purpose

On February 23, 2018, the City of Orange circulated a Draft Environmental Impact Report (Draft EIR) evaluating the Trails at Santiago Creek Specific Plan for public review. Various comments were submitted during the public review period, February 23, 2018 to April 9, 2018. After review of the comments, the City of Orange elected to revise and recirculate the Draft EIR in its entirety.

The California Environmental Quality Act (CEQA) Guidelines generally require a lead agency to evaluate and prepare a written response to all comments on environmental issues received on the Draft EIR. (Guidelines, § 15088(a), (d).) Such a response may take the form of a revision to the Draft EIR. (Guidelines, § 15088(d).) When a Draft EIR is substantially revised and the entire document is recirculated, however, the lead agency only needs to respond to comments on the Recirculated Draft EIR (RDEIR), not those received during the earlier circulation period. (Guidelines, § 15088.5 (f)(1).) Instead, the agency need only provide a summary of the revisions that were made to the previously circulated Draft EIR. (Guidelines, § 15088.5 (g).)

Given that revisions will be made to multiple sections of the RDEIR, the City is recirculating the entire document. Doing so will avoid the need to respond to comments received during the previous circulation period. The RDEIR will include a summary, in table format, of the revisions made to the previously circulated Draft EIR. The RDEIR will also advise reviewers that although prior comments received are part of the administrative record, they do not require a written response in the final EIR, and that new comments must be submitted for the revised DEIR. (Guidelines, § 15088.5 (f)(1).)

This RDEIR has been prepared in accordance with CEQA to evaluate the potential environmental impacts associated with the implementation of the Trails at Santiago Creek Specific Plan (State Clearinghouse No. 2017031020). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.), and City of Orange rules and regulations.

This RDEIR is intended to serve as an informational document for the public agency decision-makers and the public regarding the objectives and components of the project. This document will address the potentially significant adverse impacts related to construction and long-term operation of the project, as well as identify feasible mitigation measures and alternatives that may be adopted to reduce or eliminate these impacts.

Section 1, Introduction, of this RDEIR, provides further information regarding comments received on the previously circulated Draft EIR and the process by which this RDEIR is being prepared.
Project Summary

Project Location

The project is located within the City of Orange, in north-central Orange County. The site is generally located to the east of State Route 55; to the west of State Route 261; approximately 2 miles to the north of Chapman Avenue; on the north side of East Santiago Canyon Road, between Orange Park Boulevard on the east and Cannon Street on the west; and south of Mabury Avenue. The site address is 6118 East Santiago Canyon Road (see Exhibit 2-1 and Exhibit 2-2). The project site is located on the Orange, California 7.5-minute quadrangle, Township 4 South, Range 9 West, Section 23 (Latitude 33° 48’55” North; Longitude 117° 47’17” West).

Project Description

The Trails at Santiago Creek Specific Plan (Appendix Q) proposes the transformation of a rock and concrete materials recycling and backfilling operation to an environmentally enhanced, ecologically friendly open space environment embracing a well-planned and attractive single-family detached residential neighborhood.

Previously, the project included 129 units on 8,000-square-foot lots. In contrast, and in response to input provided to the applicant during a series of meetings with the Collaborative Group, the RDEIR evaluates the development of 128 dwellings on approximately 40.7 acres of the approximately 109.2-acre site, with varying lots sizes including lots larger than 8,000 square feet. Table ES-1 summarizes the residential lots included in the proposed project.

<table>
<thead>
<tr>
<th>Lot Size (sq ft)</th>
<th>Number of Lots</th>
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<tr>
<td>8,000</td>
<td>82</td>
</tr>
<tr>
<td>9,200</td>
<td>17</td>
</tr>
<tr>
<td>10,000</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Milan REI X, 2018

The majority of the project site (62.7 percent) is intended for the enhancement and preservation of the natural greenway/open space and Santiago Creek environs, as well as re-establishing open grasslands in areas that have been denuded by the project site’s history of commercial operations, totaling approximately 68.5 acres. Recreational trails will provide public access to the enhanced revegetated interior of the site. Refer to Section 2, Project Description, for a complete description of the proposed project.
Pre-Development Agreement

Public Outreach

Since 2015, over two years before the circulation of the Trails of Santiago Creek Notice of Preparation (NOP), the Applicant has conducted extensive outreach with representatives of the adjacent neighborhoods, including Orange Park Association, Mabury Ranch Homeowners Association, and The Reserve Homeowners Association, in an attempt to determine community priorities for the site.

In response to the outreach and as a good faith gesture to further constructive dialogue regarding the long-term land uses for the property, the Applicant agreed to curtail and modify the current sand and gravel operations on an interim basis, as follows:

a) Suspend backfill and stockpiling operations effective September 15, 2015;

b) After July 31, 2015, restrict rock crushing operations to a total of 15 consecutive business days within a six-month period;

c) Continue dust abatement measures; and

d) Continue ongoing maintenance of the property and enhance East Santiago Canyon Road frontage.

e) The property owner reserved all right to resume sand and gravel operations consistent with the City’s Zoning Code.

As part of the community outreach, City staff, as well as representatives from OPA, Mabury Ranch, the Reserve, and the Applicant’s representatives worked together to establish a framework for an appropriate land use entitlement. To formalize and ensure transparency for the entitlement process, the City and the Applicant have entered said Pre-Development Agreement. This agreement sets the general parameters and provides development alternatives that are intended to guide the processing of various requested land use approvals required for the project as a byproduct of public outreach.

Pre-Development Agreement (Appendix A)

To formalize and ensure transparency for the entitlement process, with input from Orange Park Association, Mabury Ranch Homeowners Association, and The Reserve Homeowners Association, the City and the Applicant entered into a Pre-Development Agreement (PDA) dated October 11, 2016 in accordance with the June 2015 Memorandum. This agreement establishes general parameters and sets forth various development alternatives that are intended to guide the processing of various requested land use approvals required for the project.

The major provisions of the agreement are as follows:

- Evaluate proposed alternatives (for the project on approximately 109.2 acres with a range of 25 to 50 acres available for residential units as set forth in Exhibit B of the PDA.

- An obligation of the Applicant to submit an application for land use entitlement approvals that include a General Plan Amendment, Zoning Change, Major Site Plan Review, Design Review,
CEQA compliance, Development Agreement, Park Planning and Development Committee consideration of project trails, and commitment by the City to expeditiously process these entitlements while complying with all legal requirements.

- Continue the cessation of the currently permitted operation of the sand and gravel operation during the processing of the Project consistent with the June 12, 2015 memorandum submitted by the Applicant to the City, Mabury Ranch, OPA, and the Reserve (attached within the PDA). The Applicant will also commence the interim remediation of the property, which will result in the lowering of the existing sand and gravel material stockpiles on the project site; subject to the Applicant’s right to resume sand and gravel operations.

- Cooperation between the Applicant and the City for the evaluation of easements and the possible extension of the Santiago Creek Trail to the north side of the project site.

PDA Alternative Land Use Plans
As part of the community outreach effort, City staff and the Applicant’s representatives have also worked together to establish a framework for an appropriate land use entitlement process. To formalize and ensure transparency for the entitlement process, the City and the Applicant entered into a PDA on October 11, 2016, which sets out some general parameters and development alternatives, which were born of extensive community outreach, to guide the processing of various requested land use approvals required for the project.

The PDA set forth six land use plans, described as follows:

- Alternative A consists of residential uses occupying up to 50 acres in the southern portion of the site between Santiago Creek and East Santiago Canyon Road. This area coincides with the former mining area and the oval-shaped raised pad.

- Alternative B consists of 42 acres of residential and 67.2 acres of open space uses; no community or recreational uses would be developed. Residential would occupy the same footprint as the proposed project, albeit with 1.8 fewer acres in the western portion of the site scenario.

- Alternative C consists of 40 acres of residential and 69 acres of open space uses; no community or recreational uses would be developed. Residential would occupy the central portion of the site; the eastern portion of the site would be dedicated for open space use. The 69 acres of passive open space would consist of privately owned, undeveloped land; no community or recreational uses would be developed.

- Alternative D consists of 40 acres of residential and 69 acres of open space uses; no community or recreational uses would be developed. Residential would occupy the central portion of the site; the eastern portion of the site would be dedicated for open space use. The 69 acres of passive open space would consist of privately owned, undeveloped land; no community or recreational uses would be developed.

- Alternative E consists of 25 acres of residential, 58 acres of open space/greenway uses, and 30 acres of organic gardens and community activity center.
• Alternative F consists of residential uses would be developed 15.4 acres north of Santiago Creek, with resource land use activities (sand, gravel, and materials recycling) occurring on 77.3 acres on both sides of the waterway. Vehicular access would be taken from two points Mabury Drive. Resource land use activities would be located on 77.3 acres on both sides of the waterway. These activities would consist of the continuation of the existing materials recycling and backfilling operation.

The PDA Alternative Land Use Plans relate to the Collaborative Group Alternative evaluated in the RDEIR.

**Pre-Development Agreement in Relation to the Proposed Project**

On March 16, 2017, the City of Orange conducted a Scoping meeting, in accordance with the State CEQA Guidelines, for the Trails at Santiago Creek Project, (“Project”). The Project described in the Notice of Preparation (NOP) consisted of approximately 150 residential dwellings configured within various development plan alternatives. The various land use scenarios were based on the City’s approval of a Pre-Development Agreement, (“PDA”) on October 11, 2016. This PDA represented several months of meetings and discussions with community, numerous representatives from Orange Park Acres Homeowners Association (“OPA”), Mabury Ranch Homeowners Association and The Reserve Homeowners Association. An essential component of the PDA and working agreement with the community representatives was the temporary suspension of all backfill and stockpiling operations at the Sully-Miller sand and gravel operation, effective September 15, 2015. Based on the PDA, the City obtained input at the Scoping Meeting. The most significant concerns expressed by the community at the Scoping Meeting pertained to traffic on East Santiago Canyon Road and Cannon Road, the preservation of Santiago Creek as a greenway, open space, flooding, and elimination of the current sand and gravel operation.

An extensive 3-year community outreach collaboration effort to address these concerns as well as other matters related to the Property Owner resulted in the following modifications, reductions, and changes to the original proposal commitments.

1. The Specific Plan (Appendix Q of the RDEIR) and associated project accommodates a maximum number of 128 single-family detached lots located in the southerly portion of the property and will consist of housing types and lot sizes compatible with the surrounding neighborhoods as depicted in the Trails at Santiago Creek Specific Plan, Exhibits 3.1-3.4, and is consistent with the development standards and guidelines set forth in the Specific Plan.

2. The implementation of the Specific Plan and associated project will fund up to $1,000,000.00 for traffic improvements to widen East Santiago Canyon Road and restripe Cannon Road prior to the issuance of the First Certificate of Occupancy of any housing units for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.1, Areas of Traffic Congestion—Pre-Project, Exhibit 4.2, Area of Project Related Traffic Improvements, and Exhibit 4.3, Additional Project Related Traffic Improvements, and Section 4.2.3, Circulation Plan.

3. The implementation of the Specific Plan and associated project will fund approximately up to a maximum of $4,100,000.00 in landscape and other improvements for the Santiago Creek
Greenway. Said Improvements are to be completed or funded prior to the issuance of the 60th Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Section 4.2.4, Trails, Open Space and Recreation Plan, and Exhibit 4.14, Preliminary Greenway, Open Space and Trails Plan.

4. The implementation of the Specific Plan and associated project will fund $1,000,000.00 to be used for in local area-wide equestrian trail purposes prior to the issuance of the first Certificate of Occupancy for the Project.

5. The implementation of the Specific Plan and associated project will finance and fund the City's acquisition of the Ridgeline Property, which will provide the community an additional 50 acres of public open space to the issuance of the first Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.4, Sully Miller, Arena, and Ridgeline Properties.

6. The implementation of the Specific Plan and associated project will provide $2,000,000.00 for equestrian and recreational purposes in the East Orange Area as determined by the City prior to the issuance of the first Certificate of Occupancy for the Project.

Project Objectives

The objectives of the proposed project are to:

OBJ-1. Locate single-family detached residential units in the most suitable areas of the project site and preserve other areas for open space and greenway.

OBJ-2. Preserve and protect Santiago Creek by abating the remnants of the resource extraction activities and establishing a greenway along the creek corridor.

OBJ-3. Promote land use compatibility with neighboring residential uses through the use of locating landscaped setbacks, and the development of a compatible housing product and lot size to the adjoining uses.

OBJ-4. Develop a network of publicly accessible trails within the project site that provide access to Santiago Creek and Santiago Oaks Regional Park.

OBJ-5. Lessen the noise, improve air quality, and reduce traffic impacts from the existing materials recycling and backfilling operations within the project site.

OBJ-6. Provide a circulation system that will minimize adverse effects on local residential neighborhoods and encourage pedestrian and bicycle circulation.

OBJ-7. Provide an infrastructure system, including sewer, water, and storm drain systems that will adequately serve full build-out of the proposed project.

OBJ-8. Improve local circulation by widening of East Santiago Canyon Road and restriping Cannon Road prior to the first Certificate of Occupancy.
Significant Unavoidable Adverse Impacts

Significant and unavoidable impacts identified in this RDEIR, include the following:

- As discussed in Impact AIR-1, the maximum daily construction emissions after the implementation of Mitigation Measures AIR-1a through AIR-1g would continue to exceed the South Coast Air Quality Management District’s (SCAQMD) regional significance thresholds. Because no additional feasible mitigation measures are available, the project’s regional operational emissions of NOX would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

- As discussed in Impact AIR-2, the project’s construction activities are estimated to generate a maximum of 199.47 pounds of NOX per day with implementation of mitigation measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NOX even after implementation of Mitigation Measures AIR-1a through AIR-1g. The project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions estimates, contained in Appendix F, show that 196.17 of the 199.47 pounds of NOX are from off-site sources. As previously discussed, the project is anticipated to require up to 275,400 total haul trips during the grading period. Because the exceedance is largely a result of the anticipated haul trips, feasible and enforceable mitigation measures to reduce the impact are limited. Based on the total haul trucks required each day and the fact that specific make and model of haul trucks can vary by contractor and within each contractor fleet, it would not be feasible to mandate the use of specific vehicles to haul soil for the proposed project. Because no additional feasible mitigation measures are available beyond those already quantified in Impact AIR-2, the project’s regional operational emissions of NOX would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

- As discussed in Impact AIR-3, the region is non-attainment for the federal and State ozone standards, the State PM10 standards, and the federal and State PM2.5 standards. Therefore, a project that would not exceed the SCAQMD thresholds of significance on a project-level would also not result in a cumulatively considerable contribution to these regional air quality impacts. The impacts from the project would, therefore, be cumulatively less than significant during project operations and significant and unavoidable during project construction.

- As discussed in Impact TRANS-2, while the fair share contribution provided through Mitigation Measure TRANS-2 would mitigate the proposed project’s impacts at the intersection of Orange Park Boulevard/East Santiago Canyon Road, impacts would be significant and unavoidable as the Orange Park Boulevard/East Santiago Canyon Road intersection is not listed in the City of Orange MPAH, or any similar plans.

All additional impacts analyzed within the Draft EIR were found to be less than significant after mitigation or less than significant with no mitigation required.
Summary of Project Alternatives

Below is a summary of the alternatives to the proposed project considered in Section 5, Alternatives to the proposed project.

Development within the Existing Land Use Designations Alternative

This alternative consists of allowing residential development north of the Santiago Creek and the continuation of existing sand and gravel operations in accordance with the current City of Orange General Plan and Zoning designations. As such, 15.4 acres of Low-Density as Residential (confirmed by the City of Orange Community Development Department) are allowed in the north-central portion of the site, north of Santiago Creek and abutting Mabury Ranch Road. Consistent with the General Plan’s density range of 2.1 to 6.0 units per acre, there is an allowable range of 32 to 92 residential homes, and a target of 77 residential homes on this 15.4-acre residential land use parcel. The existing R-1-8 Zoning for the residential area would provide a maximum of 77 single-family dwelling units based on acre density and would yield approximately 40 to 50 single-family dwelling units (although a range of 32 to 92 dwelling units could be developed under the existing land use designations). Access to this residential parcel would be from Mabury Avenue.

A section of approximately 16.5 acres of Open Space (OS) bisects the site in an east-west trend, generally following the Santiago Creek corridor, and avails itself to creekside trails to allow for connectivity to regional trails to the west, and eventually connecting to Santiago Oaks Regional Park to the east.

The majority of the site, approximately 77.3 acres, is designated Resource Area (RA) and avails itself of ongoing rock crushing and sand and gravel operations that are current and historic to the site. No changes in land use designations would occur under this alternative. Exhibit 5-1, located within Section 5, Alternatives to the Proposed Project, of this RDEIR depicts this alternative.

No Project Alternative/Existing Land Use Activities Alternative

The No Project Alternative/Existing Land Use Activities Alternative consists of the continuation of the existing sand and gravel operations on approximately 77.3 acres of the project site. Approximately 40 acres between Santiago Creek and East Santiago Canyon Road are characterized by soil piles and berms, and unpaved roads. An approximately 5-acre area near East Santiago Canyon Road supports a materials recycling operation that includes apparatus for crushing boulders, bricks, rocks, and similar materials for recycling. Since 2015, backfilling operations have been limited to 15 consecutive business days in any 6-month period; this alternative would allow backfilling operations to resume year-round as allowed by the grading permit. The project site would remain inaccessible to the public under this alternative.

1 The Development within the Existing Land Use Designations Alternative corresponds to Alternative F in the PDA.
**Collaborative Group Alternative**

The Collaborative Group Alternative was developed in response to a series of meetings between the applicant representatives and the Collaborative Group, consisting of representatives from Orange Park Acres, Mabury Ranch, and The Reserve.

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings and would develop the residential on approximately 0.7 less acres than the proposed project.

This alternative would not permit all items listed in the preface to the Draft EIR, which are a part of the proposed project.

The Collaborative Liaison Committee Alternative is depicted in Exhibit 5-2.

**122-Unit Alternative**

The 122-Unit Alternative was developed in response to a series of meetings between the applicant representatives and the Collaborative Group, consisting of representatives from Orange Park Acres, Mabury Ranch, and The Reserve.

The 122-Unit Alternative consists of 122 lots, with an average lot size of 11,200-square-feet, on 40.9 acres of the project site. The remaining 68.3 acres of the project site would be turned into open space consisting of 40.2 acres of Greenway Open Space, and 28.1 acres of Grasslands Open Space. This alternative differs from the proposed project in that it would develop ten 0.5-acre equestrian lots on the eastern border of the residential envelope, and twenty-four 10,000-square-foot lots adjacent to East Santiago Canyon Road. Moreover, in response to input the applicant received during meetings with the Collaborative Group, this alternative proposes larger lot sizes adjacent to the Preserve and portions of Orange Park Acres.

Overall, the 122-Unit Alternative would have six less dwellings than the proposed project, but would develop approximately 0.2 additional acres of the project site for residential, thereby reducing open space by approximately 0.2 acres in comparison to the proposed project.

Additionally, this alternative would have $1,000,000 less in local trail improvements from the Development Agreement.

The 122-Unit Alternative is depicted in Exhibit 5-3.

**Areas of Controversy**

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.
An NOP for the proposed project was issued on March 3, 2017. The NOP describing the original concept for the project and issues to be addressed in the EIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from March 3, 2017, through April 3, 2017. The NOP identified the potential for significant impacts on the environment related to the following topical areas:

- Aesthetics, Light, and Glare
- Agriculture Resources and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

**Disagreement among Experts**

This RDEIR contains substantial evidence to support all the conclusions presented herein. It is possible that there will be disagreement among various parties regarding these conclusions, although the City of Orange is not aware of any disputed conclusions at the time of this writing. Both the CEQA Guidelines and case law clearly provide the standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the RDEIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision-makers to make an informed judgment about the environmental consequences of the proposed project.

**Potentially Controversial Issues**

Below is a list of potentially controversial issues that may be raised during the public review and hearing process of this RDEIR:

- Aesthetics, Light, and Glare
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

It is also possible that evidence will be presented during the 45-day, statutory RDEIR public review period that may create disagreement. Decision makers would consider this evidence during the public hearing process.
In rendering a decision on a project where there is disagreement among experts, the decision-makers are not obligated to select the most environmentally preferable viewpoint. Decision makers are vested with the ability to choose whatever viewpoint is preferable and need not resolve a dispute among experts. In their proceedings, decision-makers must consider comments received concerning the adequacy of the RDEIR and address any objections raised in these comments. However, decision-makers are not obligated to follow any directives, recommendations, or suggestions presented in comments on the RDEIR, and can certify the Final EIR without needing to resolve disagreements among experts.

Public Review of the RDEIR

Upon completion of the RDEIR, the City of Orange filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this RDEIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the RDEIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the RDEIR, including the technical appendices, is available for review at the City of Orange offices and the Orange Public Library. The address for each location is provided below:

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Orange Community</td>
<td>300 East Chapman Avenue, Orange, CA 92866</td>
<td>Monday–Thursday: 7:30 a.m. to 5:30 p.m.</td>
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<tr>
<td>Development Department</td>
<td></td>
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<tr>
<td>Planning Division</td>
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<tr>
<td>Orange Public Library</td>
<td>407 East Chapman Avenue, Orange, CA 92866</td>
<td>Monday–Wednesday: 10:00 a.m. to 9:00 p.m.</td>
</tr>
<tr>
<td>Taft Branch Library</td>
<td>740 East Taft Avenue, Orange, CA 92865</td>
<td>Monday–Wednesday: 2:00 p.m. to 7:00 p.m.</td>
</tr>
<tr>
<td>El Modena Branch Library</td>
<td>300 South Hewes Street, Orange, CA 92869</td>
<td>Monday–Wednesday: 2:00 p.m. to 7:00 p.m.</td>
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<tr>
<td>Hours:</td>
<td>Monday–Saturday: 1:00 p.m. to 6:00 p.m.</td>
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Online at the City of Orange website at:
http://www.cityoforange.org/292/Project-NoticesRelated-Environmental-Doc

Agencies, organizations, and interested parties have the opportunity to comment on the RDEIR during the 45-day public review period. Written comments on this RDEIR should be addressed to:

Mr. Robert Garcia, Senior Planner
City of Orange
Community Development Department, Planning Division
300 East Chapman Avenue
Orange, CA 92866
Phone: 714.744.7231
Fax: 714.744.7222
Email: rgarcia@cityoforange.org
Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the Planning Commission public hearing. The Orange City Council will ultimately consider the comments and responses during the public hearing for the Final EIR. All comments received and the responses to comments will be included as part of the record for consideration by decision-makers for the project.

Executive Summary Matrix

Table ES-2 below summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated for the proposed project. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding section of this RDEIR. Table ES-2 is included in the RDEIR as required by CEQA Guidelines Section 15123(b)(1).
Table ES-2: Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 3.1—Aesthetics, Light, and Glare</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Impact AES-1</strong>: The project would not have a substantial adverse effect on a scenic vista.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact AES-2</strong>: The project would not substantially degrade the existing visual character or quality of the site and its surroundings.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact AES-3</strong>: The project may create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.</td>
<td><strong>MM AES-3</strong>: Prior to issuance of building permits, the project applicant shall prepare and submit lighting plans to the City of Orange for review and approval. The plans shall demonstrate that all exterior lighting fixtures comply with Orange Municipal Code Chapter 17.12.030, which requires that new light fixtures be directed, controlled, screened or shaded in such a manner as not to shine directly on surrounding premises. Additionally, lighting on any residential property must be controlled so as to prevent glare or direct illumination of any public sidewalk or thoroughfares.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Section 3.2—Agriculture and Forestry Resources</strong></td>
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<tr>
<td><strong>Impact AFR-1</strong>: The project would not convert Important Farmland to non-agricultural use.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact AFR-2</strong>: The project would not conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact AFR-3</strong>: Forest: The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g)).</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact AFR-4</strong>: The project would not result in the loss of forest land or conversion of forest land to non-forest use.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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Table ES-2 (cont.): Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
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<tbody>
<tr>
<td>Impact AFR-5: Forest: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of agricultural land to non-agricultural use or forest land to non-forest use.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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</table>

**Section 3.3—Air Quality**

**Impact AIR-1:** The project may conflict with or obstruct implementation of the applicable air quality plan.

<table>
<thead>
<tr>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
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</thead>
<tbody>
<tr>
<td><strong>MM AIR-1a:</strong> During construction, all equipment shall be maintained in good operating condition so as to reduce emissions. The construction contractor shall ensure that all construction equipment is properly serviced and maintained in accordance with the manufacturer’s specifications. Maintenance records shall be available at the construction site for City verification.</td>
<td>Significant and unavoidable.</td>
</tr>
</tbody>
</table>
| **MM AIR-1b:** All paints and coatings shall meet or exceed performance standards noted in SCAQMD Rule 1113. To ensure compliance with SCAQMD Rule 1113, the following volatile organic compound (VOC) control measures shall be implemented during architectural coating activities:  
  a) Use paints with a VOC content of no more than 50 grams per liter for both interior and exterior coatings.  
  b) Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.  
  c) Use compliant low VOC cleaning solvents to clean paint application equipment.  
  d) Keep all paint and solvent laden rags in sealed containers to prevent VOC emissions. |  |
| **MM AIR-1c:** Prior to the issuance of grading permits for the project, the project applicant shall include a dust control plan as part of the construction contract standard specifications. The dust control plan shall include measures to meet the requirements of SCAQMD Rules 402 and 403. Such basic measures may include but are not limited to the following:  
  a) All haul trucks shall be covered prior to leaving the site to prevent dust from impacting the surrounding areas. |  |
### Table ES-2 (cont.): Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
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</thead>
<tbody>
<tr>
<td>b) Moisten soil each day prior to commencing grading to depth of soil cut.</td>
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<tr>
<td>c) Water exposed surfaces at least three times a day under calm conditions, and as often as needed on windy days or during very dry weather in order to maintain a surface crust and minimize the release of visible emissions from the construction site.</td>
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<tr>
<td>d) Treat any area that will be exposed for extended periods with a soil conditioner to stabilize soil or temporarily plant with vegetation.</td>
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<tr>
<td>e) Use street sweepers that comply with SCAQMD Rules 1186 and 1186.1.</td>
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<tr>
<td>f) All contractors shall turn off all construction equipment and delivery vehicles when not in use, or limit on-site idling to no more than 5 minutes in any one hour.</td>
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<tr>
<td>g) On-site electrical hook ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators.</td>
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<tr>
<td>h) Traffic speeds on all unpaved roads to be reduced to 15 miles per hour or less.</td>
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<tr>
<td>i) Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads.</td>
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**MM AIR-1d:** Prior to and during grading activities, the project applicant shall comply with South Coast Air Quality Management District Rule 403 as follows:

- The applicant shall submit a fully executed Large Operation Notification (Form 403 N) to the SCQAMD Executive Officer within 7 days of qualifying as a large operation. The form shall include the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site.
- Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request
- Install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities
Table ES-2 (cont.): Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
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<tbody>
<tr>
<td>- Identify a dust control supervisor that (1) is employed by or contracted with the property owner or developer; (2) is on the site or available on-site within 30 minutes during working hours; (3) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements; (4) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and (5) will notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation.</td>
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<tr>
<td><strong>MM AIR-1e:</strong> Prior to and during grading activities, the project applicant shall implement the following dust control measures for large operations, as applicable, pursuant to South Coast Air Quality Management District Rule 403:</td>
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</tbody>
</table>

**Earth Moving (except construction cutting and filling areas, and mining operations)**

1a. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; or

1a-1. For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.

**Earth Moving—Construction Fill Areas**

1b. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the
**Table ES-2 (cont.): Executive Summary Matrix**

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<td>compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</td>
<td>Earth Moving—Construction Cut Areas and Mining Operations&lt;br&gt;1c. Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.</td>
<td>Earth Moving—Construction Cut Areas and Mining Operations&lt;br&gt;1c. Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.</td>
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<tr>
<td>Disturbed Surface Areas—Completed Grading Areas&lt;br&gt;2a/b. Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.</td>
<td>Inactive Disturbed Surface Areas&lt;br&gt;3a. Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; or&lt;br&gt;3b. Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; or&lt;br&gt;3c. Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR&lt;br&gt;3d. Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.</td>
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<tr>
<td><strong>Unpaved Roads</strong></td>
<td>4a. Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8-hour work day]; or 4b. Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; or 4c. Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</td>
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<tr>
<td><strong>Open Storage Piles</strong></td>
<td>5a. Apply chemical stabilizers; or 5b. Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; or 5c. Install temporary coverings; or 5d. Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</td>
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<tr>
<td><strong>All Categories</strong></td>
<td>6a. Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in this mitigation measure may be used.</td>
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<td><strong>MM AIR-1f:</strong></td>
<td>Prior to and during grading activities, the project applicant shall implement the following contingency control measures for large operations, as applicable, pursuant to South Coast Air Quality Management District Rule 403:</td>
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<tr>
<td><strong>Earth Moving</strong></td>
<td>1A. Cease all active operations; or 2A. Apply water to soil not more than 15 minutes prior to moving such soil. 0B. On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more</td>
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|         | than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR 1B. Apply chemical stabilizers prior to wind event; or 2B. Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; or 3B. Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; or 4B. Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas. Unpaved Roads 1C. Apply chemical stabilizers prior to wind event; or 2C. Apply water twice per hour during active operation; or 3C. Stop all vehicular traffic. Open Storage Piles 1D. Apply water twice per hour; or 2D. Install temporary coverings. Paved Road Track Out 1E. Cover all haul vehicles; or 2E. Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads. All Categories 1F. Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in this mitigation measure may be used. MM AIR-1g: During construction activities, all off-road equipment with engines greater than 50 horsepower shall meet either EPA or ARB Tier IV
## Table ES-2 (cont.): Executive Summary Matrix

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<td>Final off-road emission standards. The construction contractor shall maintain records concerning its efforts to comply with this requirement, including equipment lists. Off-road equipment descriptions and information may include but are not limited to equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number. If engines that comply with Tier IV Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier IV Interim) available. For purposes of this mitigation measure, “commercially available” shall mean the availability of Tier IV Final engines taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. The contractor can maintain records for equipment that is not commercially available by providing letters from at least two rental companies for each piece of off-road equipment where the Tier IV Final engine is not available.</td>
<td>Implement Mitigation Measures AIR-1a through AIR-1g.</td>
<td>Significant and unavoidable impact.</td>
</tr>
<tr>
<td>Impact AIR-2: The project may violate any air quality standard or contribute substantially to an existing or projected air quality violation.</td>
<td>Impact AIR-3: The project may result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.</td>
<td>Significant and unavoidable impact.</td>
</tr>
<tr>
<td>Impact AIR-3: The project may result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.</td>
<td>Implement Mitigation Measures AIR-1a through AIR-1g.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td>Impact AIR-4: The project may expose sensitive receptors substantial pollutant concentrations.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<td>Impact AIR-5: The project would not create objectionable odors affecting a substantial number of people.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td>Section 3.4—Biological Resources</td>
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<tr>
<td>Impact BIO-1: The proposed project would not have a substantial adverse effect on special status plant species.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<td><strong>Impact BIO-2:</strong> The proposed project may have a substantial adverse effect on special status wildlife species.</td>
<td><strong>MM BIO-2a:</strong> Prior to the issuance of any grading permit for areas supporting least Bell’s vireo habitat (such as southern cottonwood-willow riparian forest), the project applicant shall obtain federal and State take authorizations via regulatory permits (such as a CWA Section 404 permit issued by the United States Army Corp of Engineers [USACE]), which will require that the U.S. Fish and Wildlife Service (USFWS) be consulted as provided for by Section 7 of the FESA (for the federally listed least Bell’s vireo). The federal regulatory permits (such as CWA Section 404 permit issued by the USACE) provide a “federal nexus” by which Section 7 consultation can occur. This statute imposes the obligation on federal agencies to ensure that their actions (such as issuing federal CWA permits for this project) are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its designated critical habitat. This obligation is enforced through the procedural requirement that agencies such as the USACE initiate consultation with the USFWS on any actions that may affect a threatened or endangered species. During the FESA Section 7 consultation anticipated for this project, the USFWS will gather all relevant information concerning the proposed project and the potential project-related impacts on the least Bell’s vireo (i.e., the project applicant will submit a species-specific Biological Assessment), prepare its opinion with respect to whether the project is likely to jeopardize the continued existence of the species (i.e., the USFWS will issue a Biological Opinion), and recommend mitigation/conservation measures where appropriate. Additionally, the need for State regulatory permits (i.e., Fish and Game Code Section 1602 Streambed Alteration Agreement issued by the California Department of Fish and Wildlife [CDFW]) will require a Consistency Determination from the CDFW for the State-listed least Bell’s vireo under CESA. In addition, the following best management practices (BMPs) will ensure that indirect impacts will not occur to the least Bell’s vireo within 300 feet of occupied habitat as monitored by a certified biologist: 1. Construction limits in and around least Bell’s vireo potential habitat shall be delineated with flags and fencing prior to the initiation of any grading or construction activities.</td>
<td>Less than significant impact.</td>
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<td>2.</td>
<td>Prior to grading and construction a training program shall be developed and implemented to inform all workers on the project about listed species, sensitive habitats, and the importance of complying with avoidance and minimization measures.</td>
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<td>3.</td>
<td>All construction work shall occur during the daylight hours. The construction contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours determined by the City.</td>
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<td>4.</td>
<td>During all excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers’ standards to reduce construction equipment noise to the maximum extent possible. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors (i.e., least Bell’s vireo territory within Santiago Creek) nearest the project site.</td>
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<td>5.</td>
<td>The construction contractor shall stage equipment in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the project site during all project construction.</td>
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<td>6.</td>
<td>Noise from construction activities shall be limited to the extent possible through the maximum use of technology available to reduce construction equipment noise. Project-generated noise, both during construction and after the development has been completed, shall be in compliance with the requirements outlined in the City of Orange General Plan Noise Element to ensure that noise levels to which the riparian area is exposed do not exceed noise standards for residential areas.</td>
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<td>7.</td>
<td>The project shall be designed to minimize exterior night lighting while remaining compliant with City of Orange ordinances related to street lighting. Any necessary lighting (e.g., to light up equipment for security measures), both during construction and after the development has been completed, will be shielded or directed away from Santiago Creek and are not to exceed 0.5 foot-candles. Monitoring by a qualified lighting engineer (attained by the project applicant and subject to spot checking by City Staff) shall be conducted as needed to verify light levels.</td>
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are below 0.5 foot-candles required within identified, occupied least Bell’s vireo territories, both during construction and at the onset of operations. If the 0.5 foot-candles requirement is exceeded, the lighting engineer shall make operational changes or install a barrier to alleviate light levels during the breeding season.

8. Two brown-headed cowbird traps shall be installed and maintained within the general vicinity of the habitat for five years. If equestrian trails are proposed within the project site, which may result in increased horse manure and the potential for increased foraging resources for brown-headed cowbirds, an ongoing manure management receptacle/maintenance plan shall be prepared and implemented.

**MM BIO-2b:** The following shall be incorporated into the Biological Assessment as proposed mitigation for potential impacts to least Bell’s vireo, subject to USFWS and CDFW approval:

1. On- or off-site restoration or enhancement of least Bell’s vireo habitat at a ratio no less than 3:1 for permanent grading impacts.

**MM BIO-2c:** All construction, grading, and fuel modification activities (i.e., thinning) shall take place outside of the least Bell’s vireo breeding season (March 15 to September 15) to the greatest extent feasible. If any construction, grading, and fuel modification activities are required during the breeding season within 300 feet of potential least Bell’s vireo habitat, and pre-construction surveys determine least Bell’s vireo are present, activities may continue in the presence of a biological monitor who will confirm that no work will occur within a 300-foot buffer of least Bell’s vireo, and that any least Bell’s vireo are not being disturbed by project activities. If any disturbance to the least Bell’s vireo is detected by the biological monitor, the buffer will be increased, other disturbance minimizing measures may be implemented (e.g., visual and/or noise barrier), and/or work will cease as recommended by the monitor.

Additional measures to be taken for all construction activities within 300 feet of potential least Bell’s vireo habitat during the breeding season (March 15 to September 15):
**Table ES-2 (cont.): Executive Summary Matrix**

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<tr>
<td>1. Pre-construction surveys shall be conducted within 1 week prior to</td>
<td>1. Pre-construction surveys shall be conducted within 1 week prior to initiation of construction activities and all results forwarded to the USFWS and CDFW. Focused surveys shall be conducted for least Bell’s vireo during construction activities. 2. If at any time least Bell’s vireo are found to occur within 300 feet of construction areas, the monitoring biologist shall inform the appropriate construction supervisor to cease such work and shall consult with the USFWS and CDFW to determine if work shall commence or proceed during the breeding season and, if work may proceed, what specific measures shall be taken to ensure least Bell’s vireos are not affected. 3. Installation of any noise barriers and any other corrective actions taken to mitigate noise during the construction period shall be communicated to the USFWS and CDFW.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td>initiation of construction activities and all results forwarded to the USFWS and CDFW. Focused surveys shall be conducted for least Bell’s vireo during construction activities. 2. If at any time least Bell’s vireo are found to occur within 300 feet of construction areas, the monitoring biologist shall inform the appropriate construction supervisor to cease such work and shall consult with the USFWS and CDFW to determine if work shall commence or proceed during the breeding season and, if work may proceed, what specific measures shall be taken to ensure least Bell’s vireos are not affected. 3. Installation of any noise barriers and any other corrective actions taken to mitigate noise during the construction period shall be communicated to the USFWS and CDFW.</td>
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<tr>
<td>2. If at any time least Bell’s vireo are found to occur within 300 feet of construction areas, the monitoring biologist shall inform the appropriate construction supervisor to cease such work and shall consult with the USFWS and CDFW to determine if work shall commence or proceed during the breeding season and, if work may proceed, what specific measures shall be taken to ensure least Bell’s vireos are not affected. 3. Installation of any noise barriers and any other corrective actions taken to mitigate noise during the construction period shall be communicated to the USFWS and CDFW.</td>
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<tr>
<td>3. Installation of any noise barriers and any other corrective actions taken to mitigate noise during the construction period shall be communicated to the USFWS and CDFW.</td>
<td>Less than significant impact.</td>
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<td>MM BIO-2d: Prior to the issuance of any grading permit that would remove habitat containing raptor and songbird nests, the project applicant shall demonstrate to the satisfaction of the City that either of the following have been or will be accomplished. 1. Vegetation removal activities shall be scheduled outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds. 2. Any construction activities that occur during the nesting season (February 15 to August 31 for songbirds; January 15 to August 31 for raptors) will require that all suitable habitat be thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected, a buffer of at least 300 feet (500 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete, or as determined appropriate by the biological monitor, to minimize impacts.</td>
<td>Less than significant impact.</td>
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<tr>
<td>Impact BIO-3: The project may impact sensitive natural communities.</td>
<td>MM BIO-3: Prior to the issuance of any grading permit in the areas designated as sensitive riparian communities (e.g., southern cottonwood-willow riparian forest or black willow scrub/ruderal), the project applicant shall demonstrate to the satisfaction of the City that either of the following have been or will be accomplished:</td>
<td>Less than significant impact.</td>
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<tr>
<td>1. Vegetation removal activities shall be scheduled outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds. 2. Any construction activities that occur during the nesting season (February 15 to August 31 for songbirds; January 15 to August 31 for raptors) will require that all suitable habitat be thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected, a buffer of at least 300 feet (500 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete, or as determined appropriate by the biological monitor, to minimize impacts.</td>
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<td>On- or off-site restoration or enhancement of sensitive riparian communities (e.g., southern cottonwood-willow riparian forest) at a ratio no less than 1:1 for permanent impacts. Temporary impacts will be restored to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 1:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., Santa Ana Watershed Association [SAWA]). If mitigation is to occur on-site and/or off-site (i.e., not an in-lieu fee program), a mitigation and monitoring plan shall be prepared. The plan shall focus on the creation of equivalent habitats within disturbed habitat areas of the project site and/or off-site. In addition, the plan shall provide details as to the implementation of the plan, maintenance, and future monitoring. Mitigation for impacts to sensitive riparian communities shall be accomplished by on- or off-site restoration and/or enhancement (e.g., transplantation, seeding, and/or planting/staking of sensitive riparian species; salvage/dispersal of duff and seed bank; removal of large stands of giant reed within riparian areas).</td>
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**Impact BIO-4: The proposed project may impact federally protected wetlands.**

**MM BIO-4:** Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project applicant shall obtain a CWA Section 404 permit from the USACE, a CWA Section 401 permit from the Regional Water Quality Control Board (RWQCB), and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the CDFW. The following would be incorporated into the permitting, subject to approval by the regulatory agencies:

1. On- or off-site restoration or replacement of USACE/RWQCB jurisdictional waters of the United States/waters of the State at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., SAWA).
2. On- or off-site restoration or enhancement of CDFW jurisdictional |

**Less than significant impact.**
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<td><strong>Impact BIO-5:</strong> The project would not interfere with fish or wildlife movement.</td>
<td>Streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., SAWA).</td>
<td>Less than significant impact.</td>
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<td><strong>Impact BIO-6:</strong> The project would not conflict with local biological ordinances or policies.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Impact BIO-7:</strong> The project would not conflict with any applicable habitat conservation plan or natural communities conservation plan</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<td><strong>Section 3.5—Cultural Resources</strong></td>
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<td><strong>Impact CUL-1:</strong> Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered historic resources.</td>
<td>In the event that buried cultural resources are discovered during construction, operations shall stop within a 50-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist and shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined</td>
<td>Less than significant impact.</td>
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<td>Impact CUL-2: Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered archaeological resources.</td>
<td>under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor in accordance with Public Resource Code Section 21083.1 and CEQA Guidelines Section 15126.4 and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td>Impact CUL-3: Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered paleontological resources.</td>
<td>Implement Mitigation Measure CUL-1 and: MM CUL-2: During the ground disturbing activities in the areas depicted in Exhibit 3.5 1, a qualified archaeological and paleontological monitor shall be present on-site to observe earthwork activities. In the event of a discovery of an archaeological or paleontological resource, the monitor shall have the discretion to halt all ground disturbing activities within 50 feet of the find until it has been evaluated for significance. If the find is determined to have archaeological or paleontological, the procedures in Mitigation Measure CUL-1 or Mitigation Measure CUL-3 shall be implemented. Monitoring may cease once all of the areas depicted in Exhibit 3.5 1 have been thoroughly disturbed. MM CUL-3: If the subsurface excavations for this project are proposed to exceed depths of 15 feet below surface, a qualified paleontological monitor should be retained to observe such excavations, which may breach the older Quaternary Alluvium deposits. In this situation, a detailed Mitigation Monitoring Plan (MMP) or Paleontological Resource Impact Management Plan (PRIMP) should be prepared in order to set forth the observation, collection, and reporting duties of the paleontological monitor. Additional mitigation measures and procedures will be outlined in the MMP or PRIMP as needed. In the event that fossils or fossil-bearing deposits are discovered during</td>
<td>Less than significant impact.</td>
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<td>construction activities that are shallower than 10 feet in depth, excavations within a 50-foot radius of the find shall be temporarily halted or diverted. The project contractor shall notify a qualified paleontologist to examine the discovery. The paleontologist shall document the discovery as needed (in accordance with Society of Vertebrate Paleontology standards), evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If the Applicant determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The plan shall be submitted to the Lead Agency for review and approval prior to implementation, and the Applicant shall adhere to the recommendations in the plan.</td>
<td>Less than significant impact.</td>
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<th>Impacts</th>
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<tr>
<td>2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance: • The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission; • The descendent identified fails to make a recommendation; or • The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.</td>
<td></td>
<td>Less than significant impact.</td>
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### Table ES-2 (cont.): Executive Summary Matrix

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<tbody>
<tr>
<td><strong>Section 3.7—Greenhouse Gas Emissions</strong></td>
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<tr>
<td><strong>Impact GHG-1:</strong> The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact GHG-2:</strong> The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Section 3.8—Hazards and Hazardous Materials</strong></td>
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<tr>
<td><strong>Impact HAZ-1:</strong> The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact HAZ-2:</strong> The project may create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.</td>
<td><strong>MM HAZ-2a:</strong> The proposed enclosed structures shall be situated strategically to allow for future remediation of any potential landfill gas migration. Prior to issuance of building permits for dwelling units in areas of the project site where vapor intrusion has the potential to occur, the applicant shall prepare and submit plans to the City of Orange identifying vapor intrusion abatement measures for trichloroethylene (TCE) and methane. Areas where vapor intrusion has the potential to occur are those identified in the Phase II Environmental Site Assessment. Such abatement measures may include but are not limited to vapor barriers or passive/active venting systems, as determined by the appropriate regulatory agency. The approved abatement measures shall be incorporated into project building plans. Design plans for: 1) any occupied structures within 1,000 feet of the landfill boundary; and/or 2) structural systems to prevent gas-related hazards are required to be reviewed and approved by the County of Orange Health Care Agency/Local Enforcement Agency.</td>
<td><strong>MM HAZ-2b:</strong> Prior to issuance of grading permits, the project applicant shall retain a qualified hazardous materials contractor to remove all soil containing Total Petroleum Hydrocarbons in excess of residential</td>
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### Table ES-2 (cont.): Executive Summary Matrix

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<tr>
<td>development standards set forth by the California Department of Toxic</td>
<td>Soil removal and disposal shall occur in accordance with DTSC (or other applicable agency) guidelines. The applicant shall submit documentation to the City of Orange in the form of confirmatory soil sampling results verifying that this mitigation measure was successfully implemented as part of the grading permit application for this property. All environmental investigations, sampling and/or remediation for the project site shall be conducted under a workplan approved and overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup, such as the RWQCB. As part of proper construction operations and maintenance, any construction areas that are found to contain contaminated soils shall be excluded using a security fence. All contaminated soils shall then be excavated and disposed of off-site in accordance with the rules and regulations of: United States Department of Transportation (USDOT), USEPA, CalEPA, CalOSHA, and any local regulatory agencies. All retention and detention features used during construction would be lined to prevent infiltration through contaminated soils. Post-construction retention features shall be lined to prevent infiltration of groundwater. MM HAZ-2c: Prior to commencement of any construction activities that would impact existing landfill or related gas monitoring equipment, the project applicant shall contact the City Engineer to consult with and obtain approval from the Orange County Integrated Waste Management Department for the relocation of any monitoring wells or probes that would be impacted by development on the project site.</td>
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<tr>
<td>Substances Control (DTSC) or other applicable regulatory agency. Soil</td>
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<td>removal and disposal shall occur in accordance with DTSC (or other</td>
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<td>applicable agency) guidelines. The applicant shall submit documentation</td>
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<td>to the City of Orange in the form of confirmatory soil sampling results</td>
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<td>verifying that this mitigation measure was successfully implemented as</td>
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<td>part of the grading permit application for this property. All</td>
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<td>environmental investigations, sampling and/or remediation for the</td>
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<td>project site shall be conducted under a workplan approved and overseen</td>
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<td>by a regulatory agency with jurisdiction to oversee hazardous substance</td>
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<td>cleanup, such as the RWQCB. As part of proper construction operations</td>
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<td>and maintenance, any construction areas that are found to contain</td>
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<td>contaminated soils shall be excluded using a security fence. All</td>
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<tr>
<td>contaminated soils shall then be excavated and disposed of off-site in</td>
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<td>accordance with the rules and regulations of: United States Department</td>
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<td>of Transportation (USDOT), USEPA, CalEPA, CalOSHA, and any local</td>
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<td>regulatory agencies. All retention and detention features used during</td>
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<td>construction would be lined to prevent infiltration through contaminated</td>
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<td>soils. Post-construction retention features shall be lined to prevent</td>
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<td>infiltration of groundwater. MM HAZ-2c: Prior to commencement of any</td>
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<td>construction activities that would impact existing landfill or related</td>
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<td>gas monitoring equipment, the project applicant shall contact the City</td>
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<td>Engineer to consult with and obtain approval from the Orange County</td>
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<td>Integrated Waste Management Department for the relocation of any</td>
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<td>monitoring wells or probes that would be impacted by development on the</td>
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<td>project site. Impact HAZ-3: The project would not emit hazardous</td>
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<td>emissions or handle hazardous or acutely hazardous materials,</td>
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<td>substances, or waste within one-quarter mile of an existing or proposed</td>
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<tr>
<td>school. Impact HAZ-3: The project would not emit hazardous emissions or</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td>handle hazardous or acutely hazardous materials, substances, or waste</td>
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<tr>
<td>within one-quarter mile of an existing or proposed school. Impact HAZ-3:</td>
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**Impact HAZ-3:** The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
### Table ES-2 (cont.): Executive Summary Matrix

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<tbody>
<tr>
<td>Impact HAZ-4: The project may be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.</td>
<td>Implement Mitigation Measure HAZ-2a.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td>Impact HAZ-5: The project may impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</td>
<td>MM HAZ-5: Prior to issuance of the first building permit, the applicant shall prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code. The approved plan shall be incorporated into the proposed project.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td>Impact HAZ-6: The project may expose persons or property to wildland fire hazards.</td>
<td>MM HAZ-6: Prior to issuance of the first building permit, the applicant shall retain a qualified fire safety consultant to prepare a Fuel Modification Plan for the proposed project. The plan shall identify defensible space around dwelling units in accordance with City requirements. The plan shall be submitted to the City of Orange for review and approval. The approved plan shall be incorporated into the proposed project.</td>
<td>Less than significant impact.</td>
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<tr>
<td>Section 3.9—Hydrology and Water Quality</td>
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</table>
| Impact HYD-1: Construction and operational activities associated with the proposed project may potentially degrade water quality in downstream water bodies. | MM HYD-1a: Prior to the issuance of grading permits, the project applicant shall file a Notice of Intent with and obtain a facility identification number from the State Water Resources Control Board. The project applicant shall also submit a Storm Water Pollution Prevention Plan (SWPPP) to the California State Water Resources Control Board/Santa Ana Regional Water Quality Control Board. The SWPPP that identifies specific actions and BMPs to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:  
  • Comply with the requirements of the State of California’s current Construction Stormwater Permit.  
  • Temporary erosion control measures shall be implemented on all disturbed areas. | Less than significant impact.          |
**Table ES-2 (cont.): Executive Summary Matrix**

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<tr>
<td>• Sediment shall be retained on-site by a system of sediment basins, traps, or other BMPs.</td>
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<tr>
<td>• The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate discharge of materials to storm drains.</td>
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<tr>
<td>• BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Santa Ana Regional Water Quality Control Board to determine adequacy of the measure.</td>
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<tr>
<td>• In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.</td>
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</table>

**MM HYD-1b:** Prior to the issuance of building permits, the project applicant shall submit a Water Quality Management Plan (WQMP) to the City of Orange for review and approval. The plan shall be developed using the Orange County Model Water Quality Management Plan and Technical Guidance Document. The WQMP shall identify pollution prevention measures, low impact development features, and BMPs necessary to control stormwater pollution from operational activities and facilities, identify hydromodification flow controls, and provide for appropriate maintenance over time. The WQMP shall include design concepts and BMPs that are intended to address the Design Capture Volume, more commonly referred to as the “first flush,” and remove pollutants from the design system event before entering the Municipal Separate Storm Sewer Systems (MS4). In accordance with the Regional MS4 Permit and City of Orange WQMP requirements, the use of low impact development features will be consistent with the prescribed hierarchy of treatment provided in the Permit: including techniques to infiltrate, filter, store, evaporate, or retain runoff close to the source of runoff. For those areas of the project where infiltration is not recommended or acceptable and harvest/reuse
Table ES-2 (cont.): Executive Summary Matrix

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<tbody>
<tr>
<td><strong>Impact HYD-2</strong>: The proposed project would not contribute to groundwater overdraft or impair groundwater recharge.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact HYD-3</strong>: The proposed project would not contribute runoff to downstream storm drainage facilities that would result in the potential for flooding.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact HYD-4</strong>: The proposed project would not place housing or structures within a 100-year flood hazard area.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact HYD-5</strong>: The project may be susceptible to inundation from dam failure.</td>
<td>MM HYD-5: Prior to issuance of the first Certificate of Occupancy, the applicant shall retain a qualified consultant to prepare and implement an Emergency Evacuation Plan. The plan shall identify the various types of emergency that could affect the proposed project (e.g., dam failure, earthquake, flooding, etc.) and identify procedures for the safe and orderly evacuation of the project. The plan shall require that streets be identified with clear and visible signage and, if necessary, wayfinding signage be provided to identify exit points.</td>
<td>Less than significant impact.</td>
</tr>
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</table>

**Section 3.10—Land Use and Planning**

<p>| Impact LUP-1: The project would not conflict with any of the applicable provisions of the City of Orange General Plan. | No mitigation is necessary. | Less than significant impact. |
| Impact LUP-2: The project would not conflict with the applicable provisions of the Orange Municipal Code. | No mitigation is necessary. | Less than significant impact. |</p>
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<tbody>
<tr>
<td><strong>Impact LUP-3:</strong> The project would not conflict with any applicable habitat conservation plan or natural communities conservation plan.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Section 3.11—Mineral Resources</strong></td>
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<tr>
<td><strong>Impact MIN-1:</strong> The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact MIN-2:</strong> The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other local land use plan.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Section 3.12—Noise</strong></td>
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</table>
| **Impact NOI-1:** The proposed project will result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. | **MM NOI-1a:** To reduce potential construction noise impacts, the following multi-part mitigation measure shall be implemented for the proposed project:  
  - The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.  
  - The construction contractor shall locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.  
  - The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.  
  - The construction contractor shall utilize “quiet” models of air compressors and other stationary noise sources where technology exists.  
  - The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest | Less than significant impact. |
The construction contractor shall ensure that the construction staging areas shall be located to create the greatest feasible distance between the staging area and noise-sensitive receptors nearest the project site.

- The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establishment reasonable measures necessary to correct the problem. The construction contractor shall visibly post a telephone number for the disturbance coordinator at the construction site.

- All on-site construction activities, including deliveries and engine warm-up, shall be restricted to the hours between 7:00 a.m. and 8:00 p.m. Monday through Saturday. Construction, except emergency work, shall not be permitted on Sunday or federal holidays.

**MM NOI-1b:** To reduce potential future on-site exterior traffic noise impacts at on-site receptors adjacent to East Santiago Canyon Road, the following multi-part mitigation measure shall be implemented for the proposed project:

- Based on SoundPlan model runs, a 6-foot high noise barrier, relative to the receptor elevation, is required to comply with the City’s exterior noise standard for proposed residential uses located adjacent to East Santiago Canyon Road. The calculated noise contours are shown in Exhibit 3.12 7. In order to meet the City’s exterior noise standard for community uses, a 4-foot high berm would be required along East Santiago Canyon Road; or

- A minimum setback distance of 164 feet from the centerline of East Santiago Canyon Road shall be incorporated into the design feature. The first row of residential uses constructed 164 feet from the centerline will also have front yards facing East Santiago Canyon Road.

**MM NOI-1c:** To reduce potential future on-site interior traffic noise impacts at on-site receptors adjacent to East Santiago Canyon Road, the following multi-part mitigation measure shall be implemented for the proposed project:

### Table ES-2 (cont.): Executive Summary Matrix

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<tr>
<td>the project site during all project construction.</td>
<td>The construction contractor shall ensure that the construction staging areas shall be located to create the greatest feasible distance between the staging area and noise-sensitive receptors nearest the project site.</td>
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<tr>
<td>• The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establishment reasonable measures necessary to correct the problem. The construction contractor shall visibly post a telephone number for the disturbance coordinator at the construction site.</td>
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<tr>
<td>• All on-site construction activities, including deliveries and engine warm-up, shall be restricted to the hours between 7:00 a.m. and 8:00 p.m. Monday through Saturday. Construction, except emergency work, shall not be permitted on Sunday or federal holidays.</td>
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<tr>
<td><strong>MM NOI-1b:</strong> To reduce potential future on-site exterior traffic noise impacts at on-site receptors adjacent to East Santiago Canyon Road, the following multi-part mitigation measure shall be implemented for the proposed project:</td>
<td>Based on SoundPlan model runs, a 6-foot high noise barrier, relative to the receptor elevation, is required to comply with the City’s exterior noise standard for proposed residential uses located adjacent to East Santiago Canyon Road. The calculated noise contours are shown in Exhibit 3.12 7. In order to meet the City’s exterior noise standard for community uses, a 4-foot high berm would be required along East Santiago Canyon Road; or</td>
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<tr>
<td>• A minimum setback distance of 164 feet from the centerline of East Santiago Canyon Road shall be incorporated into the design feature. The first row of residential uses constructed 164 feet from the centerline will also have front yards facing East Santiago Canyon Road.</td>
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<tr>
<td><strong>MM NOI-1c:</strong> To reduce potential future on-site interior traffic noise impacts at on-site receptors adjacent to East Santiago Canyon Road, the following multi-part mitigation measure shall be implemented for the proposed project:</td>
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<td>• All proposed residential units located within 560 feet of the centerline of East Santiago Canyon Road shall include an alternate form of ventilation, such as an air conditioning system, in order to ensure that windows can remain closed for a prolonged period of time. The building plans approved by the County shall reflect this requirement.</td>
<td></td>
<td>Less than significant impact.</td>
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<tr>
<td>• All second story habitable rooms of proposed residential units located within 164 feet of the centerline of East Santiago Canyon Road shall include STC 30 rated windows in facades that would be parallel and perpendicular to East Santiago Canyon Road; or,</td>
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<tr>
<td>• Upon completion of the architectural plans, a detailed acoustical study shall be prepared by a qualified noise analyst that analyzes the interior noise levels of the proposed residential units and provides design features to reduce the interior noise levels to within the 45 dBA CNEL standard.</td>
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<tr>
<td>Impact NOI-2: The project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td>Impact NOI-3: The proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td>Impact NOI-4: The proposed project will result in a substantial temporary increase in ambient noise levels in the project vicinity.</td>
<td>Implement Mitigation Measure NOI-1a.</td>
<td>Less than significant impact.</td>
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<tr>
<td>Section 3.13—Population and Housing</td>
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<td>Impact POP-1: The project would not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<td><strong>Section 3.14—Public Services</strong></td>
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<tr>
<td><strong>Impact PS-1:</strong> The proposed project may result in a need for new or expanded fire protection facilities.</td>
<td>Implement Mitigation Measures HAZ-5 and HAZ-6.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact PS-2:</strong> The proposed project would not result in a need for new or expanded police protection facilities.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact PS-3:</strong> The proposed project would not result in a need for new or expanded school facilities.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact PS-4:</strong> The project would not result in a need for new or expanded park facilities.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Impact PS-5:</strong> The proposed project would not result in a need for new or expanded public facilities such as libraries.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<td><strong>Section 3.15—Recreation</strong></td>
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<tr>
<td><strong>Impact REC-1:</strong> The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact REC-2:</strong> The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Section 3.16—Transportation and Traffic</strong></td>
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<tr>
<td><strong>Impact TRANS-1:</strong> The project may conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Existing With Project Traffic Conditions.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Impact TRANS-2</strong>: The project may conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Year 2022 Traffic Conditions.</td>
<td><strong>MM TRANS-2</strong>: Prior to issuance of building permits, the project applicant shall provide the City of Orange with fair share fees to restripe the northbound approach of Orange Park Boulevard at East Santiago Canyon Road to provide one exclusive left-turn lane and one shared left-turn/right-turn lane. The applicant’s fair share responsibility for these improvements is 18.2 percent.</td>
<td>Significant and unavoidable impact.</td>
</tr>
<tr>
<td><strong>Impact TRANS-3</strong>: The project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Year 2040 Traffic Conditions.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact TRANS-4</strong>: The project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
</tbody>
</table>
| **Impact TRANS-5**: The project may substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | **MM TRANS-5**: Prior to issuance of the first certificate of occupancy, the City of Orange shall verify that the Applicant has made improvements to traffic circulation in the area and ensured that adequate ingress and egress to the project site is provided, as follows:  
  - Project Driveway/Nicky Way at East Santiago Canyon Road:  
    - Construct the north leg of the intersection and provide one inbound lane and two outbound lanes (i.e., one dedicated left turn lane and one shared through/right-turn lane).  
    - Widen and/or restripe East Santiago Canyon Road to provide one eastbound left-turn lane, one westbound right-turn lane and a third westbound through-lane.  
    - A five-phase signal has been installed with protected left-turn phasing in the east-west direction and permissive phasing in the north-south direction.  
  - Cannon Street at Taft Avenue:  
    - Widen and/or restripe Canon Street to provide a third northbound through lane. | Less than significant impact.                                  |
### Table ES-2 (cont.): Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact TRANS-6:</strong> The project would not result in inadequate emergency access.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact TRANS-7:</strong> The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Section 3.17—Tribal Cultural Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Impact TCR-1:</strong> The project would not cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact TCR-2:</strong> The project would not cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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<tr>
<td><strong>Section 3.18—Utilities and Service Systems</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Impact USS-1:</strong> The proposed project would be served with adequate water supplies and would not require additional entitlements or the construction or expansion of water facilities.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
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</table>
Table ES-2 (cont.): Executive Summary Matrix

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<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact USS-2:</strong> The proposed project would be served by a wastewater treatment plant with adequate capacity and would not require the construction of new or expanded facilities.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact USS-3:</strong> The proposed project would not create a need for new or expanded downstream storm drainage facilities.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact USS-4:</strong> The project would be served with adequate landfill capacity and will comply with federal, state, and local statutes and regulations related to solid waste.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
</tr>
<tr>
<td><strong>Impact USS-5:</strong> The project would not result in the inefficient, unnecessary, or wasteful use of energy.</td>
<td>No mitigation is necessary.</td>
<td>Less than significant impact.</td>
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SECTION 1: INTRODUCTION

On February 23, 2018, the City of Orange circulated a Draft EIR evaluating the Trails at Santiago Creek Specific Plan for public review. Various comments were submitted during the public review period relative to the Draft EIR, including comments related to air quality, biological resources, greenhouse gas (GHG) emissions, hazardous materials, hydrology and water quality, land use, traffic, and alternatives. After review of the comments, the City elected to revise and recirculate the Draft EIR in its entirety.

The California Environmental Quality Act (CEQA) Guidelines require a lead agency to evaluate and prepare a written response to all comments on environmental issues received on the Draft EIR (Guidelines, § 15088(a), (d)). Such a response may take the form of a revision to the Draft EIR (Guidelines, § 15088(d)). When a Draft EIR is substantially revised and the entire document is recirculated, however, the lead agency only needs to respond to comments on the Recirculated Draft EIR (RDEIR), not those received during the earlier circulation period (Guidelines, § 15088.5 (f)(1)). Instead, the agency need only provide a summary of the revisions that were made to the previously circulated Draft EIR (Guidelines, § 15088.5 (g)).

As such, the comments submitted during the comment period for the Trails at Santiago Creek Specific Plan Draft EIR, dated February 23, 2018, were taken into consideration when preparing this RDEIR, and information has been added where feasible to address pertinent comments received. The comments submitted on the previous Draft EIR will be part of the overall administrative record for the project; however, because this RDEIR replaces the previous Draft EIR in its entirety, written responses will only be provided to new comments submitted on this RDEIR during the RDEIR public comment period.

In total, the City received 130 letters during the public comment period for the previously circulated Draft EIR. Twelve of these letters were from public agencies, and 118 from private parties. While the preparation of this RDEIR reviewed and considered all these letters in its drafting, Table 1-1 below provides a full list of DEIR commenters. The previously circulated Notice of Availability (NOA) and comment letters are provided in Appendix B.

Table 1-1: DEIR Comment Letters

<table>
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<tr>
<th>Status</th>
<th>Affiliation</th>
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<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Agencies</td>
<td>City of Irvine</td>
<td>Melissa Chao, Senior Planner</td>
<td>March 9, 2018</td>
</tr>
<tr>
<td></td>
<td>Department of Toxic Substances Control</td>
<td>Johnson P. Abraham, Program Manager</td>
<td>March 20, 2018</td>
</tr>
<tr>
<td></td>
<td>City of Villa Park</td>
<td>Karen Goebel, Assistant Field Supervisors; Jonathan Snyder</td>
<td>March 24, 2018</td>
</tr>
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<td></td>
<td>Santa Ana Regional Water Quality Control Board</td>
<td>Keith Person, Regional Salt and Nutrient Coordinator</td>
<td>March 28, 2018</td>
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### Table 1-1 (cont.): DEIR Comment Letters

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<tbody>
<tr>
<td>Irvine Ranch Water District</td>
<td>Fiona M. Sanchez, Director of Water Resources</td>
<td>April 5, 2018</td>
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<tr>
<td>OC Public Works</td>
<td>Richard Vuong, Manager</td>
<td>April 5, 2018</td>
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<tr>
<td>OC Health Care Agency</td>
<td>Ossama Abu Shaban, Senior Civil Engineer</td>
<td>April 6, 2018</td>
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</tr>
<tr>
<td>Orange County Transportation Authority</td>
<td>Dan Phu, Environmental Programs Manager</td>
<td>April 6, 2018</td>
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</tr>
<tr>
<td>California Department of Fish and Wildlife</td>
<td>Gail K. Sevrens, Environmental Program Manager</td>
<td>April 9, 2018</td>
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<tr>
<td>OC Waste and Recycling</td>
<td>Jeff Arbour, Environmental Services Manager</td>
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<tr>
<td>Orange County Water District</td>
<td>Michael R. Markus, General Manager</td>
<td>April 9, 2018</td>
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<tr>
<td>Transportation Corridor Agencies</td>
<td>Virginia Gomez, Environmental Planner</td>
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<td>Private Parties</td>
<td>Ann-Mari Kliss</td>
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<tr>
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<td>Donna Elliot</td>
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<td>Sun-Sun Murillo</td>
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<tr>
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<td>Ann and Rob Forbes</td>
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<td>Private Citizen</td>
<td>Brian Lochrie</td>
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### Table 1-1 (cont.): DEIR Comment Letters

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<td>John Moore, President</td>
<td>Santiago Creek Greenway Alliance, Vice President</td>
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<td>California Cultural Resource Preservation Alliance, Inc.</td>
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### Table 1-1 (cont.): DEIR Comment Letters

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<td>April 9, 2018</td>
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<tr>
<td>Shute, Mihaly, and Weinberger LLP</td>
<td>Laura L. Impett, Urban Planner</td>
<td>April 9, 2018</td>
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<td>Sully Millar Liaison Committee</td>
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Table 1-1 (cont.): DEIR Comment Letters

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<tr>
<td>Private Citizen</td>
<td>Thomas Walsh</td>
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Table 1-2 and Table 1-3 below provide a summary of key areas where the document was revised to address pertinent and representative comments made during the prior public review period. Please note that the tables provide a representative list of sections revised stemming from specific comments received, compiled to not be repetitive in the types of comments, and do not include minor text revisions throughout the document.

Edits to specific sections include, but are not limited to, the following:

- **Section 2: Project Description**, revised to reflect changes to the proposed project, additionally, now includes a site plan exhibit, which shows the potential layout of the 128 parcels, Exhibit 2-10: Proposed Site Plan.

- **Section 3-3: Air Quality**, revised to reflect new modeling that was conducted for grading/excavation activities, and identification of significant and unavoidable impacts, and mitigation measures.

- **Section 3-4: Biological Resources**, revised to reflect changes to the proposed trails component of the project.

- **Section 3-7: Greenhouse Gas Emissions**, revised language throughout the section to provide background information and clarity, including a new consistency analysis with the State of California Air Resources Board’s AB 32 2008 Scoping Plan.

- **Section 3-8: Hazards**, revised to provide more clarity in the mitigation measures, particularly the addition of language in MM HAZ-2b regarding mitigation for potentially hazardous soils.

- **Section 3-9: Hydrology and Water Quality**, revised to provide more clarity in the mitigation measures, particularly the addition of language in MM HYD-1b regarding the inclusion of low impact development features.

- **Section 3-10: Land Use**, updated to include information on the established concept of clustering within the Orange Park Acres Plan and revised to include City of Orange Zoning Code Development Standards that the proposed project would adhere.

- **Section 3-11: Mineral Resources**, revised to include background information on the Surface Mining and Reclamation Act of 1975’s non-applicability to the project site.

- **Section 3-16: Transportation**, revised to provide a comparison between baseline traffic conditions. As the project site’s existing entitled land use is currently dormant, but operations...
can commence at any given moment, the section was revised to include baselines with and without site operation conditions. Additionally, Impact TRANS-2 has been updated to reflect significant and unavoidable impacts, despite the proposed project’s fair share contribution, provided through Mitigation Measure TRANS-2.

- **Section 5: Alternatives**, revised to remove the Land Use Plan/OPA 2008 “WIN-WIN” Alternative, per public comments. Additionally, two new alternatives were added, the Collaborative Group Alternative, consisting of 47 lots on 40 acres, and the 122-Unit Alternative.

- **Section 6: Other CEQA Considerations**, 6-1—Significant Unavoidable Impacts, has been updated to reflect Significant and Unavoidable Impacts to Impact AIR-1, AIR-2, AIR-3, and TRANS-2; as analyzed in the updated Section 3-3: Air Quality and Section 3-16: Transportation.

### Table 1-2: RDEIR Revision Summary Table, Public Agencies

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<td>City of Irvine</td>
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<td>Department of Toxic Substances Control</td>
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<td>OC Public Works</td>
<td>Section 3-9: Hydrology and Water Quality</td>
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Table 1-3 (cont.): RDEIR Revision Summary Table, Private Parties

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<td>Peter Wetzel</td>
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<td>Section 3-16: Transportation</td>
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<td>Section 2: Project Description</td>
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<td>Shute, Mihaly, and Weinberger LLP, on behalf of Orange Park Association</td>
<td>Section 3-3: Air Quality</td>
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<td>Section 3-7: Greenhouse Gas Emissions</td>
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<td>Section 5: Alternatives</td>
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<td>Stephanie Lesinski</td>
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<td>Theresa Sears</td>
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<td>Tom Davidson</td>
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This RDEIR is prepared in accordance with CEQA to evaluate the potential environmental impacts associated with the implementation of the Trails at Santiago Creek Specific Plan (State Clearinghouse No. 2017031020). This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.), and City of Orange rules and regulations. This RDEIR is intended to serve as an informational document for the public agency decision-makers and the public regarding the project.

The purpose of the RDEIR is to disclose information to the public and to the decision-makers about the potential environmental effects of the project. An EIR does not recommend either approval or
denial of a project; rather, it is intended to provide a source of independent and impartial analysis of the foreseeable environmental impacts of a proposed course of action. This RDEIR describes the project, analyzes its environmental effects, and discusses reasonable alternatives that would avoid, reduce, or minimize environmental impacts.

1.1.1 - Overview

The proposed project consists of 128 single-family residential dwelling units on approximately 40.7 acres of the approximately 109.2-acre site. The majority of the project site (approximately 62.7 percent) is intended for the enhancement and preservation of the natural greenway/open space and Santiago Creek environs, as well as re-establishing open grasslands in areas that have been denuded by the project site’s history of commercial operations, totaling approximately 69 acres. Recreational trails will provide public access to the enhanced revegetated interior of the site.

Section 2, Project Description provides a complete description of the project, and an expanded discussion of the entitlement process in the forward to this document.

1.1.2 - Purpose and Authority

This RDEIR provides a project-level analysis of the environmental effects of the Trails at Santiago Creek Specific Plan. The environmental impacts of the proposed project are analyzed in the EIR to the degree of specificity appropriate, in accordance with CEQA Guidelines Section 15146. Moreover, in accordance with CEQA Guidelines Section 15151, this EIR has been prepared with a sufficient degree of analysis to provide decision makers with information that enables them to make a decision which intelligently takes account of environmental consequences.

In accordance with CEQA Guidelines Section 15161, this document focuses primarily on the changes in the environment that would result from the development project. The EIR examines all phases of the project including planning, construction, and operation, and identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts. CEQA requires that an EIR contain, at a minimum, certain specific elements. In accordance with CEQA Guidelines Section 15120 through 15130, these elements are contained in this RDEIR and include:

- Table of Contents
- Introduction
- Executive Summary
- Project Description
- Environmental Setting, Significant Environmental Impacts, and Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found Not To Be Significant
- Areas of Known Controversy
1.1.3 - Lead Agency Determination

The City of Orange is designated as the lead agency for the project. CEQA Guidelines Section 15367 defines the lead agency as “...the public agency, which has the principal responsibility for carrying out or approving a project.” Other public agencies may use this RDEIR in the decision-making or permit process and consider the information in this RDEIR along with other information that may be presented during the CEQA process.

This RDEIR was prepared by FirstCarbon Solutions (FCS), an environmental consultant. This Draft EIR reflects the independent judgment and analysis of the City of Orange as required by CEQA. Lists of organizations and persons consulted and the report preparation personnel are provided in Section 8 of this RDEIR.

1.2 - Scope of the EIR

In compliance with the CEQA Guidelines, the City of Orange has provided opportunities for the public and other public agencies to participate in the review process, including the Notice of Preparation (NOP), Scoping Meeting, and NOA.

This RDEIR addresses the potential environmental effects of the proposed project. The City of Orange issued a NOP for the proposed project on March 3, 2017, which circulated between March 3, 2017 and April 3, 2017 for the statutory 30-day public review period. The scope of this RDEIR includes the potential environmental impacts identified in the NOP and issues raised by agencies and the public in response to the NOP. The NOP is contained in Appendix C of this RDEIR.

Eighty-one comment letters were received in response to the NOP. They are listed in Table 1-4 and provided in Appendix C of this RDEIR.

Table 1-4: NOP Comment Letters

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<th>Status</th>
<th>Affiliation</th>
<th>Signatory</th>
<th>Date</th>
</tr>
</thead>
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<tr>
<td>Public Agencies</td>
<td>South Coast Air Quality Management District</td>
<td>Lijin Sun, CEQA IGR Program Supervisor</td>
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<td>California Department of Fish and Wildlife</td>
<td>Jennifer Turner, Environmental Scientist</td>
<td>March 23, 2017</td>
</tr>
<tr>
<td></td>
<td>United States Fish and Wildlife Service</td>
<td>Karen Goebel, Assistant Field Supervisors;</td>
<td>March 24, 2017</td>
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<td></td>
<td>Jonathan Snyder</td>
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<td>OC Waste and Recycling</td>
<td>Jeff Arbour, Environmental Services Manager</td>
<td>March 29, 2017</td>
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<td>Irvine Ranch Water District</td>
<td>Fiona Sanchez, Director of Water Resources</td>
<td>March 31, 2017</td>
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<td>OC Public Works</td>
<td>Laree Alonso, Planning Division Manager</td>
<td>March 31, 2017</td>
</tr>
<tr>
<td></td>
<td>California Department of Fish and Wildlife</td>
<td>Gail Sevrens, Environmental Program Manager</td>
<td>April 3, 2017</td>
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<tr>
<td></td>
<td>City of Anaheim</td>
<td>Christine Saunders, Associate Planner</td>
<td>April 3, 2017</td>
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<td></td>
<td>City of Irvine</td>
<td>Bill Jacobs, Principal Planner</td>
<td>April 3, 2017</td>
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### Table 1-4 (cont.): NOP Comment Letters

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<td>Gary Woodside, Executive Director of Planning and Natural Resources</td>
<td>April 3, 2017</td>
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<td>Donna Elliot and Brian Elliot</td>
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Table 1-4 (cont.): NOP Comment Letters

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<td>Tom Davidson</td>
<td></td>
<td>April 3, 2017</td>
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<tr>
<td>Private Citizen</td>
<td>Michelle Gregory</td>
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<tr>
<td>Shute, Mihaly and Weinberger LLP</td>
<td>Laurel Impett, Urban Planner</td>
<td></td>
<td>April 3, 2017</td>
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<td>Private Citizen</td>
<td>Suzanne Kiel</td>
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<td>April 3, 2017</td>
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<tr>
<td>Private Citizen</td>
<td>Peter Masuck</td>
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<tr>
<td>Private Citizens</td>
<td>Susan Philipp and James Philipp</td>
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<tr>
<td>Private Citizen</td>
<td>Theresa Sears</td>
<td></td>
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<td>Shute, Mihaly and Weinberger LLP</td>
<td>Gloria Sefton, Vice President</td>
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<td>Laura Thomas</td>
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<td>Martha Wetzel</td>
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<td>Private Citizen</td>
<td>[No Name Provided]</td>
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</table>

Source: City of Orange, 2017.

1.2.1 - Scoping Meeting

Pursuant to CEQA Guidelines Section 15082(c)(1), the City of Orange held a public scoping meeting for the proposed project on Thursday, March 16, 2017, at Salem Lutheran Church and School, 6500 East Santiago Canyon Road, Orange, CA 92869. The meeting was duly noticed in the NOP that was posted on the City’s website and directly mailed to public agencies and private parties. The scoping meeting sign-in sheet is provided in Appendix C. Table 1-5 provides the names of attendees to the scoping meeting.

Table 1-5: Scoping Meeting Attendees

<table>
<thead>
<tr>
<th>Paul Andrews</th>
<th>Joy Feltcher</th>
<th>Bob Kirkeby</th>
<th>Rosemarie Reynolds</th>
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<tbody>
<tr>
<td>Allyson Ascher</td>
<td>Nancy Flathers</td>
<td>Katrina Kirkeby</td>
<td>Elise Roberts</td>
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<td>David Bailey</td>
<td>Ann Forbes</td>
<td>Ann-Mari Kliss</td>
<td>Dawn Robinette</td>
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<tr>
<td>Frances Bauer</td>
<td>Bob Forbes</td>
<td>Angela Knarr</td>
<td>Bonnie Robinson</td>
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<tr>
<td>Jerry Bohr</td>
<td>Carla French</td>
<td>Ken Kribel</td>
<td>Joel Robinson</td>
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<td>Don Bradley</td>
<td>Tom French</td>
<td>Nick Lall</td>
<td>Jane Rothschild</td>
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<tr>
<td>Toni Bradley</td>
<td>Michael Granek</td>
<td>Frank Lesinski</td>
<td>Ron Rothschild</td>
</tr>
<tr>
<td>Michael Bonnaud</td>
<td>Carol Graupensperger</td>
<td>Mark Maize</td>
<td>Theresa Sears</td>
</tr>
</tbody>
</table>
1.2.2 - Environmental Issues Determined not to be Significant

Certain subjects with various topical areas were determined not to be significant. Other potentially significant issues are analyzed in these topical areas; however, the following issues are not analyzed:

- State Scenic Highways (Section 3.1, Aesthetics, Light, and Glare)
- Septic and Alternative Wastewater Disposal Systems (Section 3.6, Geology and Soils)
- Airports (Section 3.8, Hazards and Hazardous Materials)
- Private Airstrips (Section 3.8, Hazards and Hazardous Materials)
- Seiches, Tsunamis, or Mudflows (Section 3.9, Hydrology and Water Quality)
- Division of an Established Community (Section 3.10, Land Use and Planning)
- Aviation Noise (Section 3.12, Noise)
- Displacement of Persons or Housing (Section 3.12, Population and Housing)
- Air Traffic Patterns (Section 3.16, Transportation and Traffic)

An explanation of why each issue is determined not to be significant is provided in Section 7, Effects Found not to be Significant.

1.2.3 - Potentially Significant Environmental Issues

The NOP found that the following topical areas may contain potentially significant environmental issues that will require further analysis in the RDEIR. These sections are as follows:

- Aesthetics, Light, and Glare
- Agriculture Resources and Forestry Resources
- Air Quality
- Land Use and Planning
- Mineral Resources
- Noise
1.3 - Organization of the RDEIR

This RDEIR is organized into the following main sections:

- **Section ES: Executive Summary.** This section includes a summary of the proposed project and alternatives to be addressed in the RDEIR. A brief description of the areas of controversy and issues to be resolved, and overview of the Mitigation Monitoring and Reporting Program, in addition to a table that summarizes the impacts, mitigation measures, and level of significance after mitigation, are also included in this section.

- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this RDEIR, its scope and components, and its review and certification process.

- **Section 2: Project Description.** This section includes a detailed description of the proposed project, including its location, site, and project characteristics. A discussion of the project objectives, intended uses of the RDEIR, responsible agencies, and approvals that are needed for the proposed project are also provided.

- **Section 3: Environmental Impact Analysis.** This section analyzes the environmental impacts of the proposed project. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 3 are as follows:
  - **Section 3.1—Aesthetics, Light, and Glare:** Addresses the potential visual impacts of development intensification and the overall increase in illumination produced by the project.
  - **Section 3.2—Agriculture Resources and Forest Resources:** Addresses the potential for conversion of Important Farmland to non-agricultural use and forest land to non-forest use.
  - **Section 3.3—Air Quality** Addresses the potential air quality impacts associated with project implementation, as well as consistency with the South Coast Air Quality Management District’s Air Quality Management Plan. In addition, the section also evaluates project emissions of criteria pollutants and the potential for objectionable odors.
  - **Section 3.4—Biological Resources:** Addresses the project’s potential impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on listed, proposed, and candidate threatened and endangered species.
  - **Section 3.5—Cultural Resources:** Addresses potential impacts on historical resources, archaeological resources, paleontological resources, and burial sites.
- **Section 3.6—Geology and Soils:** Addresses the potential impacts the project may have on soils and assesses the effects of project development in relation to geologic and seismic conditions.

- **Section 3.7—Greenhouse Gas Emissions:** Addresses the potential emissions of greenhouse gases (GHG).

- **Section 3.8—Hazardous and Hazardous Materials:** Addresses the potential for the presence of hazardous materials or conditions on the project site and in the project area that may have the potential to impact human health.

- **Section 3.9—Hydrology and Water Quality:** Addresses the potential impacts of the project on local hydrological conditions, including drainage areas, and changes in the flow rates.

- **Section 3.10—Land Use and Planning:** Addresses the potential land use impacts associated with division of an established community and consistency with the City of Orange General Plan and Orange Municipal Code.

- **Section 3.11—Mineral Resources:** Addresses the potential loss of mineral resources of statewide or regional importance.

- **Section 3.12—Noise:** Addresses the potential noise impacts during construction and at project buildout from mobile and stationary sources. The section also addresses the impact of noise generation on neighboring uses.

- **Section 3.13—Population and Housing:** Addresses the potential for growth inducement.

- **Section 3.14—Public Services:** Addresses the potential impacts upon public services, including fire protection, law enforcement, schools, parks, and recreational facilities.

- **Section 3.15—Recreation:** Addresses the potential for physical deterioration of recreation facilities.

- **Section 3.16—Transportation and Traffic:** Addresses the impacts on the local and regional roadway system, public transportation, bicycle, and pedestrian access.

- **Section 3.17—Tribal Cultural Resources:** Addresses potential impacts on tribal cultural resources.

- **Section 3.18—Utilities and Services Systems:** Addresses the potential impacts upon service providers, including fire protection, law enforcement, water supply, wastewater, solid waste, and energy providers.

- **Section 4: Cumulative Effects.** This section discusses the cumulative impacts associated with the proposed project, including the impacts of past, present, and probable future projects.

- **Section 5: Alternatives to the Proposed Project.** This section compares the impacts of the proposed project with four land-use project alternatives: Development within the Existing Land Use Designations Alternative, No Project Alternative/Existing Land Use Activities Alternative, Collaborative Group Alternative, and 122-Unit Alternative. An environmentally superior alternative is identified. In addition, alternatives initially considered but rejected from further consideration are discussed.

- **Section 6: Other CEQA Considerations.** This section provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts. This section discusses the cumulative impacts associated with the proposed project, including the impacts of past, present, and probable future projects. In addition, the proposed project’s energy demand is discussed.
• **Section 7: Effects Found Not To Be Significant.** This section contains analysis of the topical sections not addressed in Section 3.

• **Section 8: Persons and Organizations Consulted/List of Preparers.** This section also contains a full list of persons and organizations that were consulted during the preparation of this RDEIR. This section also contains a full list of the authors who assisted in the preparation of the RDEIR, by name and affiliation.

• **Section 9: References.** This section contains a full list of references that were used in the preparation of this RDEIR.

• **Appendices.** This section includes all notices and other procedural documents pertinent to the RDEIR, as well as all technical material prepared to support the analysis.

### 1.4 - Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this RDEIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the RDEIR has also been described. The documents and other sources that have been used in the preparation of this RDEIR include but are not limited to:

- City of Orange General Plan
- City of Orange Municipal Code
- City of Orange 2015 Urban Water Management Plan
- City of Orange Recreational Trails Master Plan
- City of Orange Sewer Master Plan

These documents are specifically identified in Section 9, References, of this RDEIR. In accordance with CEQA Guidelines Section 15150(b), the General Plan, the Municipal Code, the Urban Water Management Plan, and the referenced documents and other sources used in the preparation of the RDEIR are available for review at the City of Orange Community Development Department at the address shown in Section 1.6.

### 1.5 - Documents Prepared for the Project

The following technical studies and analyses were prepared for the proposed project:

- Air Quality and GHG Emissions Analysis, prepared by FCS (modeling output is provided in Appendix F).
- Biological Resources Assessment, prepared by PCR Services (Appendix G)
- Jurisdictional Delineation, prepared by PCR Services (Appendix G)
- Tree Survey, prepared by PCR Services (Appendix G)
1.6 - Review of the RDEIR

Upon completion of the RDEIR, the City of Orange filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this RDEIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the RDEIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the RDEIR, including the technical appendices, is available for review at the City of Orange Community Development Department, the Orange Public Library, El Modena Branch Library, and Taft Branch Library; as well as online. The address for each location is provided below.

City of Orange Community Development Department Planning Division 300 East Chapman Avenue Orange, CA 92866 Hours: Monday–Thursday: 7:30 a.m. to 5:30 p.m.

Orange Public Library 407 East Chapman Avenue Orange, CA 92866 Hours: Monday–Wednesday: 10:00 a.m. to 9:00 p.m. Thursday–Saturday: 10:00 a.m. to 6:00 p.m.

El Modena Branch Library 300 South Hewes Street Orange, CA 92869 Hours: Monday–Wednesday: 2:00 p.m. to 7:00 p.m. Thursday–Saturday: 1:00 p.m. to 6:00 p.m.

Taft Branch Library 740 East Taft Avenue Orange, CA 92865 Hours: Monday–Wednesday: 2:00 p.m. to 7:00 p.m. Thursday–Saturday: 1:00 p.m. to 6:00 p.m.
Online at the City of Orange website at:
http://www.cityoforange.org/292/Project-NoticesRelated-Environmental-Doc

Agencies, organizations, and interested parties have the opportunity to comment on the RDEIR during the 45-day public review period. Written comments on this RDEIR should be addressed to:

Mr. Robert Garcia, Senior Planner  
City of Orange  
Community Development Department, Planning Division  
300 East Chapman Avenue  
Orange, CA 92866  
Phone: 714.744.7231  
Fax: 714.744.7222  
Email: rgarcia@cityoforange.org

Submittal of electronic comments in Microsoft Word or Adobe PDF format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review by the commenting agencies at least 10 days prior to the Planning Commission public hearing. The Orange City Council will ultimately consider the comments and responses during its public hearing for the Final EIR. All comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.
SECTION 2: PROJECT DESCRIPTION

As indicated in Section 1, Introduction, this Recirculated Draft Environmental Impact Report (RDEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) (Pub. Res. Code Section 21000, et seq.) to evaluate the potential environmental impacts associated with the Trails at Santiago Creek Specific Plan.

2.1 - Project Location and Setting

2.1.1 - Location

The project is located within the City of Orange, in north-central Orange County. The site is generally located to the east of State Route 55 (SR-55); to the west of SR-261; approximately 2 miles to the north of Chapman Avenue; on the north side of East Santiago Canyon Road, between Orange Park Boulevard on the east and Cannon Street on the west; and south of Mabury Avenue. The site address is 6118 East Santiago Canyon Road (see Exhibit 2-1 and Exhibit 2-2). The project site is located on the Orange, California 7.5-minute quadrangle, Township 4 South, Range 9 West, Section 23 (Latitude 33° 48’ 55” North; Longitude 117° 47’ 17” West).

2.1.2 - Existing Land Use Activities

The approximately 109.2-acre project site contains disturbed/undisturbed, privately owned undeveloped land that supported mining activities and currently supports a historically grandfathered land use sand and gravel operation in accordance with the existing Sand and Gravel zoning (Orange Municipal Code Chapter 17.32). The project site consists of 12 parcels (Exhibit 2-3) and is bisected by Santiago Creek in an east-west direction. The site contains gently sloping terrain, with an overall change in elevation from 456 feet above mean sea level in the northeast corner to 344 feet above mean sea level in the southwest corner. An approximately 10-acre, semi-oval-shaped raised pad is located in the eastern portion of the site. The pad sits roughly 15 feet higher than the mining area to the west.

Aerial photographs of the project site and area show that approximately 40 acres between Santiago Creek and East Santiago Canyon Road contains remnants of the mining operation and is the location of the ongoing sand and gravel operation. This area is characterized by soil piles and berms, unpaved roads. An approximately 5-acre area near East Santiago Canyon Road supports a materials recycling operation that includes apparatus for crushing boulders, bricks, rocks, and similar materials for recycling. Materials used for these operations originated primarily from off-site sources and the materials generated by these operations have historically been used both on-site and transported off-site. Ancillary uses included administration and maintenance buildings, caretaker residence, material testing laboratory, driver’s shack, rock crushing facilities, several above ground and below ground fuel storage tanks and two hot-mix asphalt plants.
Additionally, the previously mined portions of the site were “backfilled,” in which unsuitable materials were excavated and replaced with fill, pursuant to a grading permit issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material would be imported to the site during the process, including concrete, asphalt and rock that would be crushed on-site. Approximately 2,000 cubic yards of material was anticipated to be excavated from the site for reuse and would be blended with the crushed import material for a total of 225,000 cubic yards of backfill.

In 2015, in “good faith” gesture, the property owner voluntarily temporarily suspended operations on the site, and limited rock crushing operations to a total of 15 consecutive business days in any 6-month period. Should entitlement of the project not succeed, the property owner reserved the right to resume all operations consistent with the Sand and Gravel zoning and grandfathered uses.

Santiago Creek enters part of the site at the eastern boundary, flows west, and exits the western boundary at North Cannon Street. The creek originates at Irvine Lake and is tributary to the Santa Ana River. The drainage feature splits near the central portion of the project site, with an upland area separating Santiago Creek into two rivulets. The Santiago Creek waterway totals 5,355 feet in length and has an average width of approximately 55 feet, which includes the area between the ordinary high water mark and the adjacent defined wetland areas. Wetland areas are generally located on either side of the active channel. The creek corridor is privately owned and is not accessible to the public.

Natural vegetation within the site is primarily located along Santiago Creek; most of the site (81.6 acres) is classified as disturbed or mined. Plant communities include southern cottonwood-willow riparian forest, ornamental, coastal sage scrub, non-native grassland, eucalyptus woodland, coast live woodland, and undifferentiated open woodland. There are 323 trees located within the project site, of which the most common species are lemon bottlebrush, eucalyptus, coast live oak, and willow.

The Handy Creek storm drain operated by the Orange County Flood Control District (OCFCD) (Facility No. E08S06) is located in the central portion of the project site. The storm drain enters the project site from the south at the intersection of North Nicky Way/East Santiago Canyon Road. The storm drain conveys stormwater collected in areas south of East Santiago Canyon Road into Santiago Creek. An unnamed storm drain located in the northwestern portion of the project site conveys stormwater collected in the Mabury Ranch neighborhood directly into Santiago Creek.

The Allen McCulloch Pipeline trunk water distribution line operated by the Metropolitan Water District (MWD) traverses the easterly portion of the project site and is located entirely below grade. The pipeline traverses the site within a 50-foot-wide easement. The easement crosses through the site in a northwest-southeast direction, entering the site from the north at the intersection of Mabury Avenue/Yellowstone Boulevard and exiting at the single-family residential subdivision to the south. The pipe measures 109 inches in diameter and is part of the MWD transmission system that supplies potable water to southern Orange County.

There are historic groundwater and methane monitoring wells associated with the closed adjoining Villa Park Landfill that are located on the western portion of the project site.

Site photographs of the project site are provided in Exhibit 2-4.
Source: Census 2000 Data, The CaSIL.
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Exhibit 2-3
Assessor Parcel Map

Source: bing Aerial Imagery. Orange County Parcel Data.
View of project site looking south from Mabury Avenue

View of project site looking southeast from Santiago Creek Trail

View of surface mining area from E. Santiago Canyon Road.

View of eastern portion of site from E. Santiago Canyon Road.

Source: FirstCarbon Solutions, 2016.
2.1.3 - Surrounding Land Uses

West

The closed Villa Park Landfill and North Cannon Street form the western boundary of the project site. The 18-acre County Villa Park Landfill property occupies the northeast quadrant of the intersection of East Santiago Canyon Road/North Cannon Street and is owned by the County of Orange. The landfill operated from 1962 through 1966. The site is enclosed with a fence and contains groundwater monitoring wells and a landfill gas disposal system. Areas to the west also include detached, single-family dwelling units related to West of Cannon (typical lot size 7,800–10,000 square feet). See Exhibit 2-5 for location of surrounding residential uses with typical lot sizes less than 10,000 square feet. Additionally, Exhibit 2-5a provides a detailed view of the lot sizes in the West of Cannon community.

North Cannon Street is a four-lane divided roadway and crosses Santiago Creek via a concrete bridge. A paved Class I bicycle/pedestrian path (Santiago Creek Bike Trail) is located along the west side of North Cannon Street south of Santiago Creek.

North

Single-family residential uses are located to the north of the project site, including Creekside Ranch (typical lot size 9,200–12,000 square feet), The Colony-North (typical lot size 8,600–12,000 square feet), Mabury Ranch (typical lot size 7,600–11,000 square feet), Hidden Creek (typical lot size 20,000–24,500 square feet), Serrano Heights (typical lot size 4,500–9,000 square feet), and Parkridge (typical lot size 8,000–12,000 square feet). Detached, single-family dwelling units are located along the north bank of Santiago Creek. See Exhibit 2-5 for location of surrounding residential uses with typical lot sizes less than 10,000 square feet. Additionally, Exhibits 2-5b, 2-5c, 2-5d, and 2-5e provide a detailed view of the lot sizes in the Creekside Ranch, The Colony-North, and Mabury Ranch communities.

Mabury Avenue is a two-lane undivided roadway. An unpaved trail (Santiago Creek Trail) is located along the north bank of the creek, parallel to Mabury Avenue.

East

Santiago Oaks Regional Park and detached, single-family residential uses associated with The Reserve (typical lot size 20,000–44,000 square feet) form the eastern boundary of the project site. The regional park contains the Santiago Creek corridor, which consists of the waterway and dense vegetation. Detached, single-family dwelling units are located east of the project site. See Exhibit 2-5 for location of surrounding residential uses with typical lot sizes less than 10,000 square feet. Additionally, Exhibit 2-5f provides a detailed view of the lot sizes in The Reserve community.

South

East Santiago Canyon Road, a four-lane, divided roadway, forms the southern boundary of the project site. Detached single-family dwelling units associated with the Jamestown neighborhood (typical lot size 8,000–11,000 square feet), Orange Park Acres (typical lot size 50,000 to 1 acre plus square feet), Eichler Homes (typical lot size 7,600–12,000 square feet), and The Colony-South (typical lot size 7,000–10,000 square feet) are located south of the roadway. See Exhibit 2-5 for location of surrounding residential uses with typical lot sizes less than 10,000 square feet. Additionally, Exhibit 2-5g provides a detailed view of the lot sizes in the Orange Park Acres community.
The Mara Brandman Arena is located at the intersection of East Santiago Canyon Road and N. Nicky Way.

2.1.4 - Land Use Designations

The City of Orange General Plan designates a portion of the project site as Low Density Residential (LDR) (15.4 acres), Resource Area (RA) (77.3 acres), and Open Space (OS) (16.5 acres) (Exhibit 2-6).

The City of Orange Zoning for the project site is S-G (Sand and Gravel Extraction) and R-1-8 (Single-Family Residential 8,000 square-feet) (Exhibit 2-7).

Additionally, portions of the project site are within the boundaries of the East Orange General Plan and Orange Park Acres Plan. The East Orange General Plan was adopted in 1975 and encompasses approximately 1,900 acres. Approximately 37 acres of the project site are located within the boundaries of the 1975 East Orange General Plan and are designated “Regional Park.” The Orange Park Acres Plan was adopted on December 26, 1973 and encompasses approximately 1,794 total acres. The Orange Park Acres Plan designates approximately 39 acres of the project site as “Open Space.” The East Orange General Plan and Orange Acres Plan are specific plans.

The proposed project entitlements would include a General Plan Amendment that would amend both the East Orange General Plan and Orange Park Acres Plan to incorporate the Trails at Santiago Creek Specific Plan. By doing so, the Trails at Santiago Creek Specific Plan would be included as part of these two existing relevant plans, which would create vertically consistent documents, that cover and include the proposed project.

Refer to Section 3.10, Land Use for a detailed discussion of project consistency with the City of Orange General Plan, City of Orange zoning, East Orange General Plan, and Orange Park Acres Plan. Additionally, land use designations for surrounding properties are included below.

West

The closed Villa Park Landfill and North Cannon Street form the western boundary of the project site.

The 18-acre Villa Park Landfill occupies the northeast quadrant of the intersection of East Santiago Canyon Road/North Cannon Street and is owned by the County of Orange. The landfill operated from 1962 through 1966. The site is enclosed with a fence and contains groundwater monitoring wells and a landfill gas disposal system.

North Cannon Street is a four-lane divided roadway and crosses Santiago Creek via a concrete bridge. A paved Class I bicycle/pedestrian path (Santiago Creek Bike Trail) is located along the west side of North Cannon Street south of Santiago Creek.

North

Single-family residential uses (typical lot size 8,000–11,000 square feet) and Mabury Avenue form the northern boundary of the project site. Detached, single-family dwelling units are located along the north bank of Santiago Creek. Mabury Avenue is a two-lane undivided local street. An unpaved trail (Santiago Creek Trail) is located along the north bank of the creek, parallel to Mabury Avenue.
Exhibit 2-5
Surrounding Properties with Lots Sizes Under 10,000 sq. ft.

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Exhibit 2-5d
Mabury Ranch 2 Lot Sizes

Source: Fuscoe Engineering, April 2018.
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Exhibit 2-5g
Orange Park Acres Lot Sizes

Source: Fuscoe Engineering, April 2018.
LAND USE SUMMARY*

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<th>Category</th>
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<td>OS - Open Space</td>
<td>16.5 Ac.</td>
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<tr>
<td>RA - Resource Area</td>
<td>77.3 Ac.</td>
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<tr>
<td>LDR - Residential Low Density</td>
<td>15.4 Ac.</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>109.2 Ac.</td>
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* LDR acres per the City of Orange. All other acres to be considered approximate.
Exhibit 2-7
City of Orange Zoning

Project Site

Legend

Project Site
R-1-8 11.6 Acres*
S-G 97.6 Acres
Total 109.2 Acres
* As per the City of Orange 07/12/16.
East
Santiago Oaks Regional Park and single-family residential uses (typical lot size 20,000–44,000 square feet) form the eastern boundary of the project site. The Santiago Creek corridor contains dense vegetation. Detached, single-family dwelling units are located east of the project site.

South
East Santiago Canyon Road, a four-lane, divided roadway, forms the southern boundary of the project site. Detached single-family dwelling units associated with the Jamestown neighborhood (typical lot size 8,000–11,000 square feet), Orange Park Acres (typical lot size 50,000 to 1 acre plus square feet), the Fairhills Eichler Homes (typical lot size 7,600–12,000 square feet), and The Colony-South (typical lot size 7,000–10,000 square feet) are located south of the roadway. The Mara Brandman Arena is located at the intersection of East Santiago Canyon Road and North Nicky Way.

2.2 - Project History

2.2.1 - Proposed Project

The project site has had several owners over the years, including Sully Miller, Fieldstone, Rio Santiago and Hanson Properties; proposed projects that have been reflective of land use activities or development proposals. The following is a summary of past land use activities and development proposals.

Sully Miller
The project site has been used for resource extraction activities for close to 100 years. Mining activities occurred on-site starting from 1919 and ceased before January 1, 1976 and consisted of surface mining of sand and aggregates.

Agricultural production intermittently occurred on the project site with the most recent production occurring from approximately 1993 through 2004. Agricultural production included fruit orchards and strawberry production. All agricultural uses on the site ceased in 2004.

The project site has also been used intermittently for storage of firewood and green waste recycling.

Existing permitted uses consistent with the City of Orange General Plan and Figure LU-5, General Plan Land Use Policy Map pertaining to the Sully Miller property are outlined below.

City of Orange General Plan
The City of Orange General Plan Land Use Element, Figure LU-5, General Plan Land Use Policy Map, indicates three land use designations on the Sully Miller property: OS, RA, and LDR.

According to the City of Orange General Plan, page LU-15, OS is described as, “Steep hillsides, creeks, or environmentally sensitive areas that should not be developed. Although designated as permanent open space, most areas will not be developed as public parks with the exception of river and creek side areas that promote connectivity to the City of Orange trail system. Lands in this category include both privately held open space and public lands.”
The General Plan's RA designation is described on page LU-23 as allowing for “Agricultural uses and continued use of stream and river channels for aggregate mining. Passive and active recreational uses are also permitted. May serve as a holding zone for future uses compatible with established and planned land uses in surrounding areas.”

According to page LU-13 of the General Plan, LDR 2.1-6.0 du/ac. Designation is described as “Conventional single-family residential development characterized by individual single-family homes constructed in subdivisions, or by custom units built on individual lots.”

The approximate acres by land use designation for the Sully Miller property consistent with the City of Orange General Plan Land Use Policy Map designation for the property results in the following:

**Sully Miller Site (109.2 acres)**
- OS—16.5 acres
- RA—77.3 acres
- LDR—15.4 acres

**City of Orange Zoning**
The City of Orange Zoning Map indicates two land use designations on the Sully Miller property: Sand and Gravel (SG) and Residential—8,000-square-foot minimum lot (R-1-8).

According to the City of Orange Municipal Code, Title 17, Zoning, Chapter 17.14, Residential Districts, and Section 17.14.020, Districts Established, the zoning designation R-1-8 is described as “A single-family residential district with a minimum lot area of 8,000 square feet.”

Chapter 17.32, Sand and Gravel Extraction District Section 17.32.01, Purpose and Intent states that “. . . It is also the intent of these regulations to provide assurance that as soon as it is feasible to do so that excavated areas will be maintained or modified in order to guarantee that the property will be suitable for a useful purpose.” Section 17.32.030, Prohibited Uses, states, “Any use not listed in Table 17.32.020 as a permitted use, conditional use, or accessory use is prohibited. However, the Community Development Director shall have the authority to determine whether an unlisted use substantially conforms to the intent of this chapter.”

The approximate acres by zoning designation for the Sully Miller property consistent with the City of Orange Zoning Map results in the following:

**Sully Miller Site (109.2 acres)**
- SG—97.4 acres
- R-1-8—11.8 acres

**Previous Development Proposals**

**Fieldstone**
The project site was the subject of a proposed residential development known as the Sully Miller/Fieldstone Communities project (Fieldstone Project). In October 2003, the Orange City Council approved the Fieldstone Project, certifying an Environmental Impact Report (Final EIR No. 1647-00)
and approving a series of land use entitlement permits, including a General Plan Amendment, Orange Park Acres Plan Amendment (processed as a General Plan Amendment), 1975 East Orange (EO) General Plan Amendment (GPA), Zone Change, and Tentative Tract Map. The Orange City Council took no specific action with respect to the Specific Plan Amendments, Zone Change, or the certified Fieldstone Project EIR. City of Orange staff have determined that the Orange City Council’s action related to the referendum invalidated the Specific Plan Amendments and Zone Change. The Final Map was not recorded.

The Fieldstone Project proposed the development of a gated residential community with a maximum of 189 single-family homes on lots ranging from 8,000 to 22,000 square feet. The residential development was spread across most of the project site, including both the north and south sides of Santiago Creek encompassing approximately 83 acres. The remaining portion of the site consisted of approximately 26 acres of open space (approximately 31 percent of the site), which did not include a greenway aspect, unlike the proposed Trails of Santiago project. The project proposed private internal streets, open space and recreation areas, and riding and hiking trail linkages along Santiago Creek and East Santiago Canyon Road. Access to the project was proposed off East Santiago Canyon Road and Mabury Avenue.

The Orange Park Acres Association supported the Fieldstone Project for being compatible with the Orange Park Acres Plan (Appendix D).

**Rio Santiago**

In 2013, the Rio Santiago project (JMI/Santiago Partners, LLC) proposed a variety of residential housing totaling 395 dwelling units. The remainder of the project site consisted of approximately 10 acres of active recreation and playfields, and approximately 50 acres (approximately 45 percent of the site) of natural greenway/open space. In the southeastern portion of the site, abutting the closed Villa Park Landfill, the 10-acre recreation parcel was proposed that included a YMCA-type facility with outdoor swimming pools, an Autism Center, sports courts and playfields, and passive play areas. A multipurpose trail easement was provided along the north side of East Santiago Canyon Road to connect to the City of Orange’s existing trail to the east, and another trail easement extended into the site from East Santiago Canyon Road to the Greenway Reserve, paralleling the community entry and then extending along the Handy Creek easement. The application required approval of a General Plan Amendment, Zone Change, Tentative Tract Map, Tentative Parcel Map, Major Site Plan Review, Design Review, and a Development Agreement. The City of Orange issued a Draft EIR in May 2013. The Orange City Council rejected the proposed Rio Santiago land use plan in June 2014.

**Hanson Properties**

In 1993, the City of Orange approved the Hanson Properties Development for residential on 12.6 acres of the Sully Miller aggregate mining property to the north bank of Santiago Creek, east of Lassen Boulevard, and south of Mabury Avenue. The Hanson Properties Development required the following discretionary approvals: General Plan Amendment from Resource Area to Low Density Residential, Zone Change from S-G to R-1-8. While the property was not developed, the discretionary approvals remained in place, and the area remains as LDR in the General Plan and is zoned for R-1-8.
2.3 - Project Characteristics

2.3.1 - Pre-Development Agreement

Public Outreach

Since 2015, over two years before the circulation of the Trails of Santiago Creek Notice of Preparation (NOP), the Applicant has conducted extensive outreach with representatives of the adjacent neighborhoods, including Orange Park Association, Mabury Ranch Homeowners Association, and The Reserve Homeowners Association, in an attempt to determine community priorities for the site.

In response to the outreach and as a good faith gesture to encourage further constructive dialogue regarding the long-term land uses for the property, the Applicant agreed to curtail and modify the current sand and gravel operations on an interim basis, as follows:

   a) Suspend backfill and stockpiling operations effective September 15, 2015;
   b) After July 31, 2015, restrict rock crushing operations to a total of 15 consecutive business days within a six-month period;
   c) Continue dust abatement measures; and
   d) Continue ongoing maintenance of the property and enhance East Santiago Canyon Road frontage.
   e) The property owner reserved all right to resume sand and gravel operations consistent with the City of Orange Zoning Code.

As part of the community outreach, City of Orange staff, as well as representatives from Orange Park Acres Homeowners Association (OPA), Mabury Ranch, the Reserve, and the Applicant’s representatives worked together to establish a framework for an appropriate land use entitlement. To formalize and ensure transparency for the entitlement process, the City of Orange and the Applicant have entered into a Pre-Development Agreement. This agreement sets the general parameters and provides development alternatives that are intended to guide the processing of various requested land use approvals required for the project as a byproduct of public outreach.

In addition to the Pre-Development Agreement, following review of the comments received on the Draft EIR, an RDEIR is being prepared that will respond to the issues and concerns raised during the public review of the Draft EIR. The intent of this approach is to ensure and further promote transparency during the environmental review process for the project.

Pre-Development Agreement

To formalize and ensure transparency for the entitlement process, with input from Orange Park Association, Mabury Ranch Homeowners Association, and The Reserve Homeowners Association, the City of Orange, and the Applicant entered into a Pre-Development Agreement (PDA) dated October 11, 2016 in accordance with the June 2015 Memorandum. This agreement establishes general parameters and sets forth various development alternatives that are intended to guide the processing of various requested land use approvals required for the project.
The major provisions of the agreement are as follows:

- Evaluate proposed alternatives A through F for the project on approximately 109 acres with a range of 25 to 50 acres available for residential units as set forth in Exhibit B of the PDA. See Exhibits 2-8a and 2-8b on pages 2-33 and 2-35.

- An obligation of the Applicant to submit an application for land use entitlement approvals that may include a General Plan Amendment, amendments to the Orange Park Acres and East Orange Plan to remove the project area from the coverage of both documents, Zoning Change, adoption of a stand-alone Specific Plan that will regulate development on-site, Major Site Plan Review, Design Review, CEQA compliance, Development Agreement, Park Planning and Development Committee consideration of project trails, and commitment by the City of Orange to expeditiously process these entitlements while complying with all legal requirements.

- Continue the cessation of the currently permitted operation of the sand and gravel operation during the processing of the project consistent with the June 12, 2015 memorandum submitted by the Applicant to the City of Orange (attached within the PDA). The Applicant will also commence the interim remediation of the property, which will result in the lowering of the existing sand and gravel material stockpiles on the project site; subject to the Applicant’s right to resume sand and gravel operations.

- Cooperation between the Applicant and the City of Orange for the evaluation of easements and the possible extension of the Santiago Creek Trail to the north side of the project site.

**Pre-Development Agreement in Relation to the Proposed Project**

On March 16, 2017, the City of Orange conducted a Scoping Meeting, in accordance with State CEQA Guidelines, for the Trails at Santiago Creek Project, (“Project”). The Project described in the Notice of Preparation (NOP) consisted of approximately 150 residential dwellings configured within various development plan alternatives. The various land use scenarios were based on the City’s approval of a Pre-Development Agreement, (“PDA”) on October 11, 2016. This PDA represented several months of meetings and discussions with community, numerous representatives from Orange Park Acres Homeowners Association (“OPA”), Mabury Ranch Homeowners Association, and The Reserve Homeowners Association. An essential component of the PDA and working agreement with the community representatives was the temporary suspension of all backfill and stockpiling operations at the Sully-Miller sand and gravel operation, effective September 15, 2015. Based on the PDA, the City obtained input at the Scoping meeting. The most significant concerns expressed by the community at the Scoping meeting pertained to traffic on East Santiago Canyon Road and Cannon Road; the preservation of Santiago Creek as a greenway, open space, flooding, and elimination of the current sand and gravel operation.

An extensive 3-year community outreach collaboration effort to address these concerns as well as other matters related to the Property Owner resulted in the following modifications, reductions, and changes to the original proposal commitments:

1. The Specific Plan (Appendix Q of the RDEIR) and associated project accommodates a maximum number of 128 single-family detached lots located in the southerly portion of the
property and will consist of housing types and lot sizes compatible with the surrounding neighborhoods as depicted in the Trails at Santiago Creek Specific Plan, Exhibits 3.1-3.4 and consistent with the development standards and guidelines set forth in the Specific Plan.

2. The implementation of the Specific Plan and associated project will fund up to $1,000,000.00 for traffic improvements to widen East Santiago Canyon Road and restrripe Cannon Road prior to the issuance of the first Certificate of Occupancy of any housing units for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.1, Areas of Traffic Congestion—Pre-Project, Exhibit 4.2, Area of Project Related Traffic Improvements, and Exhibit 4.3, Additional Project Related Traffic Improvements, and Section 4.2.3, Circulation Plan.

3. The implementation of the Specific Plan and associated project will fund approximately up to a maximum of $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway. Said Improvements are to be completed or funded prior to the issuance of the 60th Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Section 4.2.4, Trails, Open Space and Recreation Plan, and Exhibit 4.14, Preliminary Greenway, Open Space and Trails Plan.

4. The implementation of the Specific Plan and associated project will fund $1,000,000.00 to be used for in local area-wide equestrian trail purposes prior to the issuance of the first Certificate of Occupancy for the project.

5. The implementation of the Specific Plan and associated project will finance and fund the City’s acquisition of the Ridgeline Property, which will provide the community an additional 50 acres of public open space to the issuance of the first Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.4, Sully Miller, Arena and Ridgeline Properties.

6. The implementation of the Specific Plan and associated project will provide $2,000,000.00 for equestrian and recreational purposes in the East Orange Area as determined by the City prior to the issuance of the first Certificate of Occupancy for the project.

2.3.2 - Project Summary

A Specific Plan (Appendix Q) has been prepared to provide a comprehensive evaluation of the land uses proposed for the site and includes land use regulations, infrastructure plans, zoning and development regulations, design guidelines and implementation criteria. The Specific Plan process enables the development of the property and implementation of proposed improvements, both short-term and long-term, while also addressing infrastructure improvements and community services. The Applicant requests the City of Orange’s consideration of the following components:

- General Plan Amendment.
- Zone Change (Trails at Santiago Creek Specific Plan).
- Development Agreement offering additional community benefits and vesting rights associated with project approvals for a period of time mutually agreed upon by the City of Orange and Applicant.
An EIR for disclosure and assessment of potential project impacts and establishment of mitigation measures and a Mitigation Monitoring and Reporting Program.

Adoption of the Trails at Santiago Creek Specific Plan.

The Specific Plan proposes the Greenway/Open Space and Santiago Creek environs in the north portion of the site and a Grasslands/Open Space element in the eastern portion of the site abutting the adjacent Reserve residential neighborhood. A Single-Family Detached Residential parcel is proposed in the south-central and southwestern portion of the site abutting the adjacent County-owned vacant parcel west of the project site. The residential neighborhood will be accessed from East Santiago Canyon Road across from Nicky Way. The proposed land use plan is shown in Exhibit 2-9, a summary of the project is listed in Table 2-1, and a breakdown of each land use is provided below.

### Table 2-1: Project Land Use Summary

<table>
<thead>
<tr>
<th>Planning Area</th>
<th>Land Use</th>
<th>Acres</th>
<th>Percent of Site</th>
<th>Maximum Dwelling Units</th>
<th>Maximum Density</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Open Space</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Greenway/Santiago Creek</td>
<td>40.2</td>
<td>—</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>Grasslands Open Space</td>
<td>28.3</td>
<td>—</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>68.5</td>
<td>62.7%</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Low-Density Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Single-Family Detached Residential</td>
<td>40.7</td>
<td>37.3%</td>
<td>128</td>
<td>3.1 du/ac</td>
</tr>
<tr>
<td></td>
<td>Grand Total</td>
<td>109.2</td>
<td>100%</td>
<td>128</td>
<td>3.1 du/ac</td>
</tr>
</tbody>
</table>


### Residential Uses

The Trails at Santiago Creek proposes a well-planned Single-Family Detached Residential neighborhood comprising 40.7 acres within Planning Area C, located in the south-central and southwestern portions of the site abutting the adjacent vacant County-owned parcel. The project proposes 128 units, equating to 3.1 du/ac. Reflective of residential lots in the existing surrounding neighborhoods of Mabury Ranch, The Colony North and Creekside Ranch, Orange Park Acres at Orange Park Boulevard and East Santiago Canyon Road, and Jamestown, the project includes three different single-family detached lot programs ranging in size from 8,000-square-feet–9,000-square-feet; 9,200-square-feet–10,000-square-feet; and 10,000 square-feet and greater. The overall average lot size for PA-C is approximately 10,300-square-feet. Homes will be one-story and two-story. The largest lots are located in the east side of PA-C Adjacent to The Reserve. Please refer to Exhibit 2-10: Proposed Site Plan.

The project’s residential neighborhoods in PA-C will be a present-day interpretation of the existing surrounding neighborhoods, complimentary to and in character with them. Similar materials will be used, rooflines and roof styles will be comparable, and the architectural theme will be an updated
version of the surrounding neighborhoods and compatible with the area. Homes will be designed to reinforce the pedestrian scale of the neighborhood by incorporating second floor setbacks and covered front porches and entryways that address the sidewalk and reduce the scale of the homes. Building massing and setbacks will be in-keeping with existing neighborhoods. Residential Development Standards will be the standards contained in the City of Orange Zoning Code, Chapter 7.14, Residential District, Section 17.14.070, General Requirements, Table 17.14.070, Residential Development Standards R-1-8 and R-1-10.

The influence of the project’s natural open space that surrounds the residential neighborhood and the network of multi-use trails and amenities within the open space having a rustic equestrian character provides the opportunity to establish a quasi-rural personality to the neighborhoods. Residential/local streets will have curb adjacent landscape parkways planted with street trees in character with the surrounding natural environs. Entry monumentation, signage and lighting will reinforce this character in design interpretation and materials (stone, timbers, and rustic metals). Edge treatments and any public landscape within PA-C will utilize plant materials and be designed in character with the natural surroundings, i.e. drifts and swaths of grasses and shrubs, vines, and accent plantings in informal/natural patterns. Pedestrian and bicycle connectivity from the residential neighborhoods to the surrounding open space and trail network will be via trail paseos extending into the neighborhoods as well as via the Handy Creek Easement Linear Park.

As stated above, the residential planning area will abide by the City of Orange Zoning Code Development Standards for R-1-8 and R-1-10 (Single-Family Residential) development, shown in detail in Table 2-2.

Table 2-2: City of Orange Zoning Code Development Standards

<table>
<thead>
<tr>
<th>Zoning</th>
<th>Units Per Lot</th>
<th>Minimum Lot Area (Sq. Ft.)</th>
<th>Minimum Lot Frontage (Feet)</th>
<th>Minimum Lot Depth (Feet)</th>
<th>Minimum Yard Setback (Feet)</th>
<th>Maximum Height (Feet)</th>
<th>Maximum Floor Area Ratio</th>
<th>Minimum Usable Open Space (Sq. Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-1-8</td>
<td>1</td>
<td>8,000</td>
<td>60</td>
<td>100</td>
<td>20</td>
<td>20</td>
<td>32—2 stories</td>
<td>0.60</td>
</tr>
<tr>
<td>R-1-10</td>
<td>1</td>
<td>10,000</td>
<td>80</td>
<td>100</td>
<td>20</td>
<td>20</td>
<td>32—2 stories</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Exhibit 2-8a
Pre-Development Agreement Alternatives A-D
Exhibit 2-8b
Pre-Development Agreement Alternatives E-F

Pre-Development Agreement Alternative E

Pre-Development Agreement Alternative F - Existing City of Orange General Plan
Exhibit 2-9
Proposed Land Use Plan

LAND USE SUMMARY

<table>
<thead>
<tr>
<th>Category</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space</td>
<td>68.5</td>
</tr>
<tr>
<td>PA-A: Greenway</td>
<td>40.2</td>
</tr>
<tr>
<td>PA-B: Grasslands</td>
<td>20.3</td>
</tr>
<tr>
<td>Residential</td>
<td>40.7</td>
</tr>
<tr>
<td>PA-C: Low-Density Residential</td>
<td>40.7</td>
</tr>
<tr>
<td></td>
<td>128 Single-Family Detached Lots, 3.1 du/ac</td>
</tr>
<tr>
<td>TOTAL</td>
<td>109.2</td>
</tr>
</tbody>
</table>

Proposed Site Plan

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Table 2-3 provides a breakdown of the Trails at Santiago Creek Specific Plan residential lots and lot sizes, and which City of Orange Development Standards will apply.

**Table 2-3: Trails at Santiago Creek Specific Plan Residential Lot Sizes and Applicable Zoning**

<table>
<thead>
<tr>
<th>Planning Area Location</th>
<th>Lots</th>
<th>Lot Size</th>
<th>Applicable Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>82</td>
<td>8,000</td>
<td>R-1-8</td>
</tr>
<tr>
<td>C1 and C2</td>
<td>17</td>
<td>9,200</td>
<td>R-1-8</td>
</tr>
<tr>
<td>C2</td>
<td>29</td>
<td>10,000</td>
<td>R-1-10</td>
</tr>
</tbody>
</table>


**Santiago Creek Greenway and Open Space Areas**

The open space at The Trails at Santiago Creek will be approximately 68.5 acres and will comprise natural hillsides, re-established grasslands, a restored Santiago Creek riparian corridor and a managed vegetation/fuel modification zone. The open space will occupy approximately 62.7% of the site and will include:

- Planning Area A—Greenway Open Space and Santiago Creek Riparian Corridor: 40.2 acres
- Planning Area B—Grasslands Open Space (includes East Santiago Canyon Road trail easement and a managed vegetation/fuel modification zone): 28.3 acres

Santiago Creek, which meanders across the site in an east-to-west trend, is an incised perennial USGS blue-line drainage course that primarily supports southern cottonwood-willow riparian forests as well as the development of fringe wetlands. The creek bifurcates into two stream beds in the center of the site, ultimately rejoining in the western portion of the property.

Planning Area A, the Greenway Open Space and Santiago Creek, with its riparian and wetland habitats, provides an environment that supports both on-site “live-in” wildlife as well as a movement corridor for regionally oriented wildlife. Off-site to the east, the Santiago Creek open space corridor provides a link to Santiago Oaks Regional Park and the natural open space beyond. Off-site to the west the Santiago Creek open space corridor connects with the Santa Ana River environs with its ponds and tributaries.

Planning Area B, the Grassland area located south of Santiago Creek, has been disturbed over the years due to commercial operations on the site and will be restored as a natural grasslands interspersed with other plant communities and seasonal wildflowers. Planning Area B also includes the Managed Vegetation/Fuel Modification zone located north of and east of Planning Area C and acts as a vegetative buffer between the open space and residential neighborhood. This 130-foot-wide buffer zone will be comprised of plantings that are compatible with on-site plant communities while being responsive to fuel management policies. A 20-foot wet zone falls within the rear yard of the residential lots along this edge. The Managed Vegetation/Fuel Modification Zone(s) complies with fuel modification requirements specified by Section 320 of the Orange Fire Code (per Orange Municipal
Code Section 15.32.020). Upon dedication of the Specific Plan’s open space in Planning Areas A and B to the City of Orange, County of Orange, or other entity, the Applicant/developer will retain an easement for fuel modification zone maintenance at the time of final mapping.

The Trails at Santiago Creek supports and restores the open space habitats on-site and cleans up and restores Santiago Creek on-site, both of which during the property’s life span have fallen, in some areas, to a degraded environmental state. Studies will be conducted and plans will be prepared and submitted to the City and/or other jurisdictional agencies for review and approval for the enhancement, restoration and re-establishment of the plant community habitats on the land on the north side of Santiago Creek, within the Santiago Creek corridor and within the grassland areas in the southeast portion of the Specific Plan area.

The uses within the open space planning areas will be compatible with and reflective of uses as described in the Santiago Creek Vision Plan (2018), Santa Ana River, Santiago Creek Greenbelt Plan (1971), and the Santa Ana River/Santiago Creek Greenbelt Implementation Plan (1976). Other documents that guided proposed uses and/or trails included the City of Orange General Plan Circulation and Mobility Section, the East Orange General Plan (1975), the Orange Park Acres Plan (1973), and the Riding and Hiking Trails Map of Orange Park Acres and Vicinity.

According to the Santiago Creek Greenway Alliance, open space grasslands and trails should be cared for and maintained by OC Parks as part of the regional park system, in order to ensure that the habitat will be properly managed for public benefit (Appendix E). No such commitment has been made by OC Parks for long-term stewardship of the open space grasslands and trails as part of this proposed project. In the event that OC Parks will not provide management and maintenance for the open space grasslands and trails, the responsibility would be the responsibility of the Homeowners Association as part of the proposed project.

Responsibility for open space grasslands and trails management and maintenance will be discussed as part of the ongoing process.

**Trails, Open Space, and Recreation**

Taking into consideration the previously referenced documentation and the quality, character and intended restoration of the project’s open space planning areas, the open space within The Trails at Santiago Creek avails itself to a variety of passive recreational uses including trailheads, multi-use recreational trails and trail-side resting areas. Please refer to Exhibit 2-11: Preliminary Greenway, Open Space and Trails Plan.

As outlined in the Preface of this document, approximately $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway will be funded, as part of the proposed project. Said improvements are to be completed or funded prior to the 60th Certificate of Occupancy.

**Trailhead**

In the southerly portion of the site within Planning Area B a signature trailhead is provided reinforcing the equestrian vernacular of the area. Intended to be an informative entryway into the greenway and open space environs, there will be informational signage and trail maps, equestrian hitching rails and watering station, bike racks and rustic benches, and a shade shelter and tables for
resting and/or waiting for others. This area will be a gathering place for riders and hikers to meet and join up with friends and community colleagues for mutual recreation and trail enjoyment. Educational kiosks will inform the public about the ecology, biological resources, and special-status species of the area, as well as emphasizing the importance of staying on the trails, respecting seasonal trail closures, and the community’s responsibility in protecting the natural resources.

A variety of recreational trails for combined uses of hiking, bicycling, and horseback riding will traverse the project site as described in the following. Trails are proposed to be unpaved (decomposed granite or similar) in keeping with the natural setting.

**Trails**

*Trail A*

Along the north side of East Santiago Canyon Road, in addition to the existing Class II bike trail, an off-street recreational trail will extend along the entire length of the project site. This trail will provide continuity from the existing recreation trail that parallels the roadway east of the project site, with the intention of eventually connecting to future planned trails off-site to the west (provided by others). This 10’ wide trail will be separated from East Santiago Canyon Road by a 6-foot wide landscaped parkway (minimum, as measured from the back of curb) within an 18-foot minimum wide easement. Trail A will be constructed by the Applicant as part of the proposed project.

*Trail B*

This recreational trail will extend northward from the East Santiago Canyon Road trail, pass through the project’s trailhead and meander through the grassland open space area in the southeast portion of the site (Planning Area B). The trail will pass through open areas in the northeast portion of PA-B that can be used by the community at large for informal passive gatherings and activities such as casual picnics, kite-flying, and Frisbee play.

Continuing northward Trail B will cross the Santiago Creek riparian corridor via a bridge that will span the creek environs. The bridge, with a span in excess of 100 feet, will be constructed of wood and/or steel and be of a character in keeping with the locale and setting. The bridge will be located toward the easterly end of the creek corridor in the most feasible location to be the least intrusive to the creek environment. This 10-foot wide trail will be set within an 18-foot minimum wide easement.

*Trail C*

This trail is an existing unpaved recreational trail known as the Santiago Creek Trail. It is predominantly off-site abutting the project’s boundary and Planning Area A, the Greenway Open Space, with a short length running within the property along the northwest boundary. The trail begins at Cannon Street and trends along the project’s northwesterly boundary to Mabury Avenue, where it turns east and runs off-site along the entire northern boundary of the project site between Mabury Avenue and the Greenway Open Space. At the project’s eastern boundary, the trail continues off-site to the Santiago Oaks Regional Park via the Santiago Creek open space corridor.

*Trail D*

This recreational trail trends east/west through Planning Area A, the greenway open space on the north side of the Specific Plan area, and above Santiago Creek. The trail traverses the sloping land on the east and west sides and meanders through the gently sloping meadow area in the central portion
of the site, providing for overviews of the Santiago Creek corridor and its woodland communities. The trail connects at three points with Trail C, the Mabury Ranch Trail, allowing for an enjoyable loop through varying terrain. It also connects with Trail B south through Planning Area B to Trail A and East Santiago Canyon Road, and to Cannon Road that abuts the westerly most portion of Planning Area A.

The final design and alignment of Trail D will be done to avoid or minimize impacts to coastal sage scrub and other native habitats, and to traverse through vegetation communities that already exhibit disturbance. Portions of the trail may be closed or partially closed seasonally when adjacent to habitat that may support special-status birds during breeding season.

This 10-foot wide trail will be set within an 18-foot minimum wide easement.

**Trail E**

Trail E is located in Planning Area B south of and above Santiago Creek and north of the residential neighborhoods in Planning Area C. It is oriented in an east/west trend and serves multiple purposes: as a multi-use recreation trail, as a seasonal access for servicing the managed vegetation/fuel modification zone, and as a fire access road (complying with the Orange Fire Code Section 320 and associated guidelines). This trail will have a 20-foot-wide all-weather surface suitable to carry vehicle weight. Also, Trail E’s alignment is comparable to the trail depicted in the 2018 Santiago Creek Vision Plan, page 33, Figure 44.

**Trail F**

Trail F is oriented in a north/south trend within the Handy Creek Linear Park in Planning Area B. It provides a direct link into the Planning Area B open space environs from the community entry and signalized intersection at East Santiago Canyon Road and Nicky Way. A trail crossing signal for hikers, bicyclists and horseback riders will be provided for safe crossing of the residential street upon entering the community and Planning Area C.

This 10-foot wide trail will be set within an 18-foot minimum wide easement.

**Rest Areas**

Within Planning Area A and Planning Area B, trailside rest areas are proposed at select locations. These rest areas will have rustic benches, a horse hitching rail, and a bike rack. They are provided to allow trail users the opportunity to rest and take a break, take in the view and setting, and enjoy the company of other trail users.

**Parks**

Through extensive meetings and dialogues with representatives of adjacent residential neighborhoods including Orange Park Association, Mabury Ranch Homeowners Association, and The Reserve Homeowners Association, it was mutually agreed upon that no active parks or recreational facilities would be proposed on the project site, but rather passive recreational uses and trails would be incorporated into the plan as have been described above. Within Planning Area B, the existing Handy Creek OCFCFD Easement provides for an open space extension to East Santiago Canyon Road and the project entry. A linear park (Handy Creek Linear Park) will be developed within the easement providing trail connectivity and will be accented with shade structures, benches and accent plantings. All areas, including Handy Creek Linear Park, will comply with fuel modification requirements specified by Section 320 of the Orange Fire Code (per Orange Municipal Code Section 15.32.020).
Circulation Plan

The Circulation Plan for The Trails at Santiago Creek provides for the movement of vehicular traffic while creating an environment for pedestrians, bicyclists, and equestrian riders through the inclusion of both a regional and local on-site trail system. The trail system provides internal connectivity within The Trails at Santiago Creek, as well as the potential for external connections to the greater Orange community, Santiago Oaks Regional Park, the existing regional trail system, and other off-site destinations and amenities. For existing circulation, please refer to Exhibit 2-12a. For proposed circulation, please refer to Exhibit 2-12b: Proposed Circulation.

Vehicle Circulation

Existing

Regional access to the site is provided via the SR-55 Freeway, SR-91 Freeway, and the SR-241/SR-261 Freeways (Toll Roads). The principal local network of streets serving the proposed project includes East Santiago Canyon Road and Cannon Street. The project site is located on the north side of East Santiago Canyon Road between Cannon Street and Orange Park Boulevard.

There is no existing public access to the project site. Private controlled access to the project site occurs from East Santiago Road via two gated and monitored entrances.

East Santiago Canyon Road is generally a four-lane divided roadway that borders the project site on the south. On-street parking is generally not permitted along this roadway within the vicinity of the project. The posted speed limit on East Santiago Canyon Road adjacent to the project site is 50 miles per hour (mph). In the vicinity of the project site traffic signals control the intersections of East Santiago Canyon Road at Hewes Street, Cannon Street, Orange Park Boulevard and Meads Avenue. Approximately 5 acres in the southeastern portion of the project site are used for materials recycling, including the crushing of boulders, bricks, rocks, etc. Access to the materials recycling area is provided via a controlled entrance along East Santiago Canyon Road. Materials generated by this operation have historically been used within and transported off the project site.

Cannon Street is a four-lane divided roadway oriented in a north-south direction. On-street parking is generally not permitted along this roadway within the vicinity of the project. Adjacent to the project site the posted speed limit on Cannon Street is 45 mph.

Current traffic volumes resulting from the existing on-site rock crushing operation generates approximately 686 daily trips, of which over 500 of those trips are truck traffic. Traffic movement on East Santiago Canyon Road and through intersections in the vicinity of the proposed project is less than desirable at peak hours.

Proposed Access to the project will be provided via one proposed full access signalized entry road, located directly opposite Nicky Way, along East Santiago Canyon Road. No parking will be allowed along either side of the entry road. Sidewalks will be located on each side of the entry road separated by a landscaped parkway.

While the proposed project has the potential for a gross increase of 1,228 daily trips and the potential for a net increase of daily trips (542), but which also results in a significant reduction of the current rock crushing operations traffic generated by heavy-trucks, the project proposes several
improvements to the surrounding roadways and intersections, thus ensuring increased capacity and adequate traffic flow in the area. These are improvements that would not be incorporated in the absence of the project. These capacity improvements involve roadway widening and/or re-striping to reconfigure (add lanes) to specific approaches of key intersections. The identified improvements are expected to:

- Mitigate the impact of existing traffic, project traffic and future non-project (ambient traffic growth and cumulative project) traffic; and
- Improve Levels of Service to an acceptable range and/or to pre-project conditions.

To ensure that adequate ingress and egress to the project site can occur from East Santiago Canyon Road without impeding through traffic flow, the following Project Feature Improvements will be provided at the project’s entry across from Nicky Way:

- Construct the project’s entry road on the north side of the intersection and provide one inbound lane and two outbound lanes (one left turn lane and one shared through-right turn lane). Widen and/or restripe East Santiago Canyon Road to provide one eastbound left-turn lane and one westbound right-turn deceleration lane. Install a five-phase traffic signal with protected left-turn phasing in the east-west direction and permissive phasing in the north-south direction.

In addition to the above the following additional Voluntary Improvements will be provided:

- East Santiago Canyon Road—Widen and restripe the north side of East Santiago Canyon Road approximately 4 to 6 feet from the easterly project boundary to the existing free-right turn lane at Cannon Street to provide a third westbound through lane
- Cannon Street—Restripe Cannon Street from East Santiago Canyon Road to Serrano Avenue to provide a third northbound through lane.

Within the proposed residential neighborhood (Planning Area C) local streets will be designed in accordance with the City of Orange 100 Series—Street Improvement Standards, Standard Plan 106 Local Streets, Case I and Case II. Streets will have one travel lane in each direction and sidewalks separated by a landscape parkway. Parallel parking will be allowed on one or both sides of the street pending neighborhood design.

**Non-Vehicular Circulation**

*Existing*

Pedestrian circulation is provided via existing public sidewalks along the south side of East Santiago Canyon Road east of the project site terminating at the Mara Brandman Equestrian Center and resuming west of Nicky Way. There is no public sidewalk on the north side of Santiago Canyon Road abutting the project site or west of the site. Lastly, there are existing public sidewalks of both the east and west sides of Cannon Street.
Exhibit 2-12a
Existing Circulation

Project Site

Legend:
- Property Boundary
- Arterial Roadway
- Site Access
- Class II Bike Lane
- Recreational Trail
Exhibit 2-12b
Proposed Circulation

Class II bike lanes (on-street bike lanes delineated by painted strips and other features) exist along the north and south sides of East Santiago Canyon Road and the east and west sides of Cannon Street. A public Recreation Trail currently exists along the north side of East Santiago Canyon Road adjacent to the existing Reserve neighborhood to the east of the project site. Along the north boundary of the site exists the Santiago Creek Bike Trail extending from Cannon Street east to the easterly project boundary and further on to Santiago Oaks Regional Park.

Proposed

As described above, in Santiago Creek Greenway and Open Space Areas, numerous documents have been reviewed and taken into consideration in preparing the pedestrian, bicycle and equestrian trail network for the project. Below is a brief description of the various components of this network. Please refer to Trails, Open Space and Recreation, above, for a more detailed discussion.

A variety of public multi-use recreation trails will traverse the project site, providing shared use of hiking, biking and horseback riding on decomposed granite trail surfaces. Along the north side of East Santiago Canyon Road, in addition to the existing Class II bike lane, an off-street recreational trail will extend along the entire length of the project site. This trail will provide continuity from the existing trail that parallels the roadway east of the project site, with the intention of connecting to future planned trails off-site to the west (provided by others). This 10-foot-wide trail will be separated from East Santiago Canyon Road by a minimum 6-foot-wide landscaped parkway measured from the back of curb within a minimum 18-foot-wide easement, as per the City of Orange Recreational Trail Master Plan (RTMP) Detail #2. Trail fencing between the trail and the street shall also be consistent with the City of Orange RTMP Detail #14 and shall be placed outside of the trail tread area. The fence will be in-keeping with the existing fencing along East Santiago Canyon Road east of the project.

Throughout the open space in Planning Areas A and B, a network of 10-foot-wide multi-use recreation trails will meander across the land providing public access to the restored open space and the Santiago Creek environs on this once private land. A bridge located in the northeast portion of PA-A will provide trail access across the Santiago Creek environs. The trail system will connect to the existing Santiago Creek Trail along the northern boundary and on the west side at Cannon Street Trail access to the residential neighborhoods in PA-C will be via a number of trail paseos allowing for hiking and bicycling access, and via the handy Creek Linear Park in PA-B. Within the PA-C, all streets will have sidewalks on one or both sides.

It is the intent of The Trails at Santiago Creek to provide a recreational trail system that avails the open space areas and the Santiago Creek environs to the community of Orange and the general public at large, as well as the project’s residential neighborhood, and becomes an integral part of the City’s and County’s trail master plans via connectivity opportunities.

Emergency Access

Emergency vehicle access will be provided on the Specific Plan area per the City of Orange Fire Department Fire Code and associated guidelines. The City Fire Department staff will review the project’s Site Plan and TTM upon preparation to verify the adequacy of the emergency vehicle access. As indicated on Exhibit 4.8, Proposed Circulation, emergency access is provided from East
Santiago Canyon Road to the single-family detached residential neighborhood (Planning Area C) in two locations. One access point is located in the southeast end of Planning Area C, and the other access point is located in the southwest portion of Planning Area C. Access will be controlled via a knockdown bollard or gate off of East Santiago Canyon Road. A 20-foot wide all-weather travel surface will be provided within a 32-foot wide easement allowing emergency access from East Santiago Canyon Road to the interior neighborhood street system.

No public roadways are proposed within open space Planning Areas A or B. Currently, Orange County Flood Control accesses the site from the north via a gated access point at Mabury Avenue and Yellowstone Boulevard. This access will still be provided once the project is complete and will be via the proposed trail system.

In addition, Orange County Flood Control and the City of Orange Fire Department will have access from Cannon Street via County owned property to the proposed 20-foot wide multi-use recreational trail/fire access road along the south side of Santiago Creek in Planning Area B. This trail/access road provides access for the managed vegetation and fuel modification zone maintenance and may also be used by emergency vehicles. All fire access roads shall comply with the City of Orange Fire Code and associated guidelines.

**Grading and Earthwork**

The proposed project includes extensive remediation of bad soils conditions left as a byproduct of the former mining operation. This will necessitate the import of approximately 877,000 cubic yards of new clean materials and the export of approximately 500,000 cubic yards of silty soils. The blend of imported materials will be based on the recommendation of the project’s soils engineer and will include asphalt, concrete, rock, and soil to be mixed in with the materials found on-site currently. These activities are expected to take place over an 18-month period.

**Utilities**

**Storm Drainage**

The storm drain system for the Specific Plan area will extend from Santiago Creek into Planning Area C via underground pipes of various sizes. Runoff would be conveyed by a curb and gutter system into catch basins and the underground storm drain piping system to control runoff from the residential and open space areas. The storm drain system will discharge to a water quality basin within Planning Area B and then into Santiago Creek. Elevation of Planning Area C will be raised above the 100-year flood elevation. Stormwater facilities will be provided on-site to adequately serve the residential and open space development.

The storm drain system located in public streets and public easements shall be dedicated to the City at the time of final map recordation.

**Potable Water**

The City of Orange Water Division would provide potable water service to the proposed project. Two existing water mains are located within East Santiago Canyon Road and measure 18 inches and 24 inches in diameter, respectively.
The proposed project would install a network of underground water lines within the project site that would connect to one or both of the existing water mains within East Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit.

**Wastewater**

Orange County Sanitation District (OCSD) would provide wastewater collection and treatment to the proposed project. An existing OCSD trunk sewer main is located within East Santiago Canyon Road that measures 18 inches in diameter.

The proposed project would install a network of underground sewer piping within the project site that would connect to the existing sewer main within East Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit.

**Electricity**

Southern California Edison (SCE) would provide electrical service to the proposed project. A network of underground electrical lines would be installed within the project site and connect to existing SCE facilities along East Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit.

**Natural Gas**

The Southern California Gas Company (SoCalGas) would provide natural gas service to the proposed project. A network of underground natural gas lines would be installed within the project site and connect to existing SoCalGas facilities along East Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit.

**Comparison to Prior Development Proposals**

Table 2-4 compares the current Trails at Santiago Creek Specific Plan proposal with the previous Fieldstone, Rio Santiago, and Hanson Properties proposals.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Unit Count and Acres</th>
<th>Open Space/Greenway</th>
<th>Comparison of Previous Plan vs Current Plan¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fieldstone (Previous)</td>
<td>189 single-family dwelling units located on approximately 50 acres</td>
<td>36.5 acres of open space and recreation (33 percent)</td>
<td>The Fieldstone Previous Plan would add 60 additional units, and would provide 23.5 fewer acres of open space and recreation, with no greenway proposed.</td>
</tr>
<tr>
<td>Rio Santiago (Previous)</td>
<td>395 single-family dwelling units located on 83 acres;</td>
<td>50 acres of open space greenway (45 percent) and 10 acres of recreation</td>
<td>The Rio Santiago Previous Project would add 266 additional units, and would provide 1 less acre of open space greenway and recreation.</td>
</tr>
<tr>
<td>Hanson Properties (Previous)</td>
<td>25 single-family dwelling units located on 16.3 acres</td>
<td>N/A</td>
<td>The Hanson Properties Previous Project would develop the north bank of Santiago Creek, whereas the proposed project would create open space in that area.</td>
</tr>
</tbody>
</table>

¹ The fieldstone and rio santiago previous plans would add more units and acres of open space and recreation, with no greenway proposed.
Table 2-4 (cont.): Comparison to Prior Development Proposals

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Unit Count and Acres</th>
<th>Open Space/Greenway</th>
<th>Comparison of Previous Plan vs Current Plan¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trails at Santiago Creek Specific Plan (Current)</td>
<td>128 single-family dwelling units located on 40.7 acres</td>
<td>28.3 acres of open space (26 percent) and 40.2 acres of greenway (36.8 percent)</td>
<td>—</td>
</tr>
</tbody>
</table>

Note:
¹ For informational purposes only. See Section 3.10, Land Use for additional information.
Source: FCS, 2016.

Project Implementation

Implementation of the proposed project will be primarily dictated by economic conditions and may occur on a phased basis over a period of years. However, for the purposes of providing a conservative, worst-case analysis in this EIR, it will be assumed that the entire project would be developed in a single phase that takes 24 months to complete. Construction would begin in January 2020 and the project would be completed by January 2022.

2.4 - Project Objectives

The objectives of the proposed project are to:

- **OBJ-1.** Locate single-family detached residential units in the most suitable areas of the project site and preserve other areas for open space and greenway.
- **OBJ-2.** Preserve and protect Santiago Creek by abating the remnants of the resource extraction activities and establishing a greenway along the creek corridor.
- **OBJ-3.** Promote land use compatibility with neighboring residential uses through the use of locating landscaped setbacks, and the development of a compatible housing product and lot size to the adjoining uses.
- **OBJ-4.** Develop a network of publicly accessible trails within the project site that provide access to Santiago Creek and Santiago Oaks Regional Park.
- **OBJ-5.** Lessen the noise, improve air quality, and reduce traffic impacts from the existing materials recycling and backfilling operations within the project site.
- **OBJ-6.** Provide a circulation system that will minimize adverse effects on local residential neighborhoods and encourage pedestrian and bicycle circulation.
- **OBJ-7.** Provide an infrastructure system, including sewer, water, and storm drain systems that will adequately serve full build-out of the proposed project.
- **OBJ-8.** Improve local circulation by widening of East Santiago Canyon Road and restriping Cannon Road prior to the first certificate of occupancy.
2.5 - Intended Uses of this Draft EIR

This Draft EIR is being prepared by the City of Orange to assess the potential environmental impacts that may arise in connection with actions related to implementation of the proposed project. Pursuant to CEQA Guidelines Section 15367, the City of Orange is the lead agency for the proposed project and has discretionary authority over the proposed project and project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future development that are within the parameters of the proposed project.

2.5.1 - Discretionary and Ministerial Actions

Discretionary approvals and permits are required by the City of Orange for implementation of the proposed project. The project application would require the following discretionary approvals and actions, including:

- A General Plan Amendment to Change the City of Orange General Plan Designation for the site from Resource Area (RA) to Low Density Residential (LDR 2.1-6 Du/Ac) and Open Space (OS); and from Low Density Residential (LDR2-6 Du/Ac) to Open Space (OS).
- A Zone Change to re-designate the site designation from Sand and Gravel (S-G) and Single Family Residential 8,000 sf (R-1-8) to Specific Plan (SP), consistent with the Trails at Santiago Creek Specific Plan.
- A Development Agreement offering additional community benefits and vesting rights associated with project approvals for a period of time mutually agreed upon by the City of Orange and Applicant.
- Certification of an Environmental Impact Report for disclosure and assessment of potential project impacts and establishment of mitigation measures and a Mitigation Monitoring and Reporting Program.
- Adoption of the Trails at Santiago Creek Specific Plan.

Subsequent ministerial actions would be required for the implementation of the proposed project, including issuance of grading and building permits.

2.5.2 - Responsible and Trustee Agencies

A number of other agencies in addition to the City of Orange will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This Draft EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of project implementation. These agencies may include but are not limited to the following:

- United States Army Corps of Engineers (USACE)
- United States Fish and Wildlife Service
- California Department of Fish and Wildlife (CDFW)
- California Department of Toxic Substances Control (DTSC)
• Santa Ana River Regional Water Quality Control Board (RWQCB)
• South Coast Air Quality Management District
• County of Orange

Actions that are necessary to implement the project that must be taken by other agencies are:

• Issuance of Section 404 Permits (USACE)
• Issuance of a Lake and Streambed Alteration Agreement (CDFW)
• Issuance of Section 401 Water Quality Certification (RWQCB)
SECTION 3: ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation, or through subsequent analysis that the proposed project would result in “potentially significant impacts.” Sections 3.1 through 3.18 discuss the environmental impacts that may result with approval and implementation of the proposed project.

Issues Addressed in this EIR

The following environmental issues are addressed in Section 3:

- Aesthetics, Light, and Glare
- Agriculture Resources and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems

Level of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers in approving a project to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and checklist; state, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.
Summary Heading of Impact

Impact AES-1: An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact number identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.

Impact Analysis

A narrative analysis follows the impact statement.

Level of Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to state and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

MM AES-1 Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact it is associated with (AES-1 in this example); mitigation measures are numbered sequentially.

Level of Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the mitigation measure numbering are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Environmental Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>AES</td>
<td>Aesthetics, Light, and Glare</td>
</tr>
<tr>
<td>AFR</td>
<td>Agriculture Resources and Forest Resources</td>
</tr>
<tr>
<td>AIR</td>
<td>Air Quality</td>
</tr>
<tr>
<td>BIO</td>
<td>Biological Resources</td>
</tr>
<tr>
<td>CUL</td>
<td>Cultural Resources</td>
</tr>
<tr>
<td>GEO</td>
<td>Geology and Soils</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse Gas Emissions</td>
</tr>
<tr>
<td>Code</td>
<td>Environmental Issue</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>HAZ</td>
<td>Hazards and Hazardous Materials</td>
</tr>
<tr>
<td>HYD</td>
<td>Hydrology and Water Quality</td>
</tr>
<tr>
<td>LUP</td>
<td>Land Use and Planning</td>
</tr>
<tr>
<td>MIN</td>
<td>Mineral Resources</td>
</tr>
<tr>
<td>NOI</td>
<td>Noise</td>
</tr>
<tr>
<td>POP</td>
<td>Population and Housing</td>
</tr>
<tr>
<td>PS</td>
<td>Public Services</td>
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<td>REC</td>
<td>Recreation</td>
</tr>
<tr>
<td>TRANS</td>
<td>Transportation and Traffic</td>
</tr>
<tr>
<td>TCR</td>
<td>Tribal Cultural Resources</td>
</tr>
<tr>
<td>USS</td>
<td>Utilities and Service Systems</td>
</tr>
</tbody>
</table>

**Comparative Analysis of Scenarios**

This EIR will evaluate the proposed project plus three additional scenarios that consist of modifications to the project. Because each scenario contemplates less residential development than the proposed project, they will be evaluated at a qualitative level in each topical section.
3.1 - Aesthetics, Light, and Glare

3.1.1 - Introduction

This section describes the existing aesthetics, light and glare setting and potential effects from project implementation on visual resources and the site and its surrounding area. Descriptions and analysis in this section are based on site reconnaissance by FCS, as well as review of the City of Orange General Plan.

3.1.2 - Environmental Setting

Visual Character

Regional Setting

The City of Orange, population 141,240, is located in central Orange County at the base of the Santa Ana Mountains. Orange is characterized by a mix of contemporary low-rise suburban development in the northern and eastern portions of the city limits; early 20th century development in the historic Old Towne area in the western and central portion of the city limits; and denser mid-rise development near the “Orange Crush” interchange\(^1\) in the southern portion of the city. Wholly contained within the Orange city limits is the City of Villa Park, which exhibits similar visual attributes. The eastern portion of Orange sits on the lower slopes of the Santa Ana Mountains and thus features lower-density residential development and open space areas.

Local Setting

The approximately 109-acre project site contains disturbed, privately owned undeveloped land that previously supported mining activities and currently supports a sand gravel operator in accordance with the existing Sand and Gravel zoning (Orange Municipal Code Chapter 17.32). The project site is comprised of 12 parcels and is bisected by Santiago Creek in an east-west direction. The site contains gently sloping terrain, with an overall change in elevation from 456 feet above mean sea level in the northeast corner to 344 feet above mean sea level in the southwest corner. An approximately 10-acre, semi-oval-shaped raised pad is located in the eastern portion of the site. The pad sits roughly 15 feet higher than the mining area to the west.

Approximately 40 acres between Santiago Creek and East Santiago Canyon Road contains remnants of the mining operation and is the location of the ongoing sand and gravel operation. This area is characterized by soil piles and berms, and unpaved roads. Near East Santiago Canyon Road is an approximately 5-acre area that supports a materials recycling operation that included apparatus for the crushing of boulders, bricks, rocks, and similar materials for recycling. Materials used for these operations originated primarily from off-site sources and the materials generated by these operations have historically been used both on-site and transported off-site. Ancillary uses included administration and maintenance buildings, caretaker residence, material testing laboratory, driver’s shack, rock crushing facilities, several above ground and below ground fuel storage tanks and two hot-mix asphalt plants.

\(^{1}\) The interchange of Interstate 5, State Route 22, and State Route 57.
Additionally, the previously mined portions of the site were “backfilled,” in which unsuitable materials were excavated and replaced with fill, pursuant to a grading permit issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material would be imported to the site during the process, including concrete, asphalt and rock that would be crushed on-site. Approximately 2,000 cubic yards of material was anticipated to be excavated from the site for reuse and would be blended with the crushed import material for a total of 225,000 cubic yards of backfill. In 2015, the operator voluntarily temporarily suspended operations on the site, and limited rock crushing operations to a total of 15 consecutive business days in any six-month period. The operator reserved the right to resume all operations consistent with the Sand and Gravel zoning.

Santiago Creek enters the site at the eastern boundary, flows west, and exits the western boundary at North Cannon Street. The creek originates at Irvine Lake and is tributary to the Santa Ana River. The drainage feature splits near the central portion of the project site, with an upland area separating Santiago Creek into two rivulets. The average width of the drainage feature is approximately 55 feet, which includes the area between the ordinary high water mark and the adjacent defined wetland areas. Wetland areas are generally located on either side of the active channel. The creek corridor is not accessible to the public.

Natural vegetation within the site is primarily located along Santiago Creek. Plant communities include coast live woodland, coastal sage scrub, eucalyptus woodland, non-native grassland, ornamental, southern cottonwood-willow riparian forest, and undifferentiated open woodland. There are 323 trees located with the project site, of which the most common species are blue gum (eucalyptus), oak, willow, and palm; the proposed project would follow the City of Orange Tree Preservation Ordinance by replacing any removed trees in a no-less-than 1:1 ratio. Further discussion of on-site trees is found in Section 3.4, Biological Resources.

**Surrounding Land Uses**

The following is a summary of surrounding land uses. Exhibit 3.1-1 provides views of surrounding land uses.

*West*

The closed Villa Park Landfill and North Cannon Street form the western boundary of the project site.

The 18-acre Villa Park Landfill occupies the northeast quadrant of the intersection of East Santiago Canyon Road/North Cannon Street and is owned by the County of Orange. The landfill operated from 1962 through 1966. The site is enclosed with a fence and contains groundwater monitoring wells and a landfill gas disposal system. The western and southern portions of the project site are visible from the landfill.

North Cannon Street is a four-lane divided roadway and crosses Santiago Creek via a concrete bridge. A paved Class I bicycle/pedestrian path (Santiago Creek Bike Trail) is located along the west side of North Cannon Street south of Santiago Creek. The western portion of the project site is visible from North Cannon Street.
Source: FirstCarbon Solutions, 2016.

**Exhibit 3.1-1**

**Surrounding Land Uses**

- Single-family residential uses north of Mabury Avenue
- Villa Park Landfill (Closed)
- Mara Brandman Arena
- Single-family residential uses south of E. Santiago Canyon Road
North
Single-family residential uses (8,000-square-foot lots) and Mabury Avenue form the northern boundary of the project site. Detached, single-family dwelling units are located along the north bank of Santiago Creek. Mabury Avenue is a two-lane undivided roadway. An unpaved trail (Santiago Creek Trail) is located along the north bank of the creek, parallel to Mabury Avenue. The northern portion of the project site is visible from Mabury Avenue.

East
Santiago Oaks Regional Park and single-family residential uses (40,000-square-foot lots) form the eastern boundary of the project site. The Santiago Creek corridor contains dense vegetation. Detached, single-family dwelling units are located east of the project site. The eastern portion of the project site is visible from Santiago Regional Park and the single-family residential uses.

South
East Santiago Canyon Road, a four-lane, divided roadway, forms the southern boundary of the project site. Detached single-family dwelling units (8,000- and 40,000-square-foot lots) are located south of the roadway. The Mara Brandman Arena is located at the intersection of East Santiago Canyon Road and North Nicky Way. The southern portion of the project site is visible from East Santiago Canyon Road.

Scenic Vistas
A Scenic Vista, as defined by the City of Orange General Plan EIR, is a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Portions of the City are characterized by scenic vistas including undeveloped hillsides, ridgelines, and open space areas that provide a unifying visual backdrop to the urban environment. An abundance of scenic vistas occur in the largely undeveloped Santiago Hills II and East Orange portions of the planning area including Irvine Lake, grassy valleys, rugged hillside, and winding canyons.

Viewscape Corridor
Several city roadways display scenic qualities and are designed as viewscape corridors by the County of Orange. Viewscape corridors are defined by the City’s General Plan EIR as routes that traverse a corridor within which unique or unusual scenic resources and aesthetic values are found. The County of Orange designates viewscape corridors including portions of Jamboree Road, Santiago Canyon Road, and Newport Boulevard. The City does not contain any County-designated landscape corridors.

According to the Visual and Aesthetic Resources of the City’s General Plan (page NR-8), Policy 7.2, (as shown in figure NR-4, Viewscape Corridors) the section of Santiago Canyon Road designated a viewscape corridor is located to the east of Jamboree Road and is not within the vicinity of the project site.

Scenic Resources
Scenic resources are defined as those landscape patterns and features that are visually or aesthetically pleasing and that, therefore, contribute affirmatively to the definition of a distinct community or region including, but not limited to, trees, rock outcroppings, and historic buildings.
Scenic areas, open spaces, rural landscapes, vistas, country roads, and other factors interact to produce a net visual benefit upon individuals or communities. Santiago Creek is considered a scenic resource by the City’s General Plan EIR.

Light and Glare

There are no existing sources of light and glare within the project boundaries. The proposed project may include light poles, solar panels, window glazing, and lights/glare typically associated with residential uses. To preserve the naturalness of the site, light and glare from the proposed project will be managed in accordance with the City of Orange Zoning Ordinance. The City of Orange Zoning Ordinance regulates lighting and stipulates that lighting and glare shall be controlled in order to prevent glare or direct illumination on surrounding premises, public sidewalks, or thoroughfares.

3.1.3 - Regulatory Framework

Local

City of Orange

General Plan

The General Plan sets forth the following goals and policies that are relevant to aesthetics, light, and glare:

Land Use Element

- **Goal 6.0**: Advance development activity that is mutually beneficial to both the environment and the community.
- **Policy 6.1**: Ensure that new development is compatible with the style and design of established structures and the surrounding environment.
- **Policy 6.3**: Establish and maintain greenways, and pedestrian and bicycle connections that complement the residential, commercial and open space areas they connect.
- **Policy 6.4**: Create and maintain open space resources that provide recreational opportunities, protect hillside vistas and ridgelines, and conserve natural resources.
- **Policy 6.6**: Enhance the walkability of both new and current development.
- **Policy 6.7**: Integrate natural amenities and connections, including waterways and wildlife corridors, within the design of urban and suburban spaces.
- **Goal 7.0**: Promote coordinated planning among City departments and agencies, property owners, residents, special districts, and other jurisdictions in the region.
- **Policy 7.5**: Work with and encourage other agencies and service providers to minimize potential visual and environmental impacts of their facilities on Orange.

Natural Resources Element

- **Goal 7.0**: Protect significant view corridors, open space, and ridgelines within the urban environment.
- **Policy 7.1**: Preserve the scenic nature of significant ridgelines visible throughout the community.
- **Policy 7.2**: Designate Santiago Canyon Road east of Jamboree Road as a City Scenic Highway to preserve the scenic nature of the open space adjacent to the road.

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• **Policy 7.3**: Encourage the development of landscaped medians and parkway landscaping along arterial streets in public and private projects, and encourage the state to provide freeway landscaping.

• **Policy 7.4**: Coordinate with Southern California Edison and other utilities to place utility lines underground wherever possible.

• **Policy 7.5**: Encourage the retention and enhancement of scenic corridors and visual focal points within the community.

*City of Orange Municipal Code*

The City's Zoning Ordinance regulates lighting. Section 17.12.030 states:

The following provisions shall apply:

A. Lighting on any premises shall be directed, controlled, screened or shaded in such a manner as not to shine directly on surrounding premises. Furthermore, lighting on any residential property shall be controlled so as to prevent glare or direct illumination of any public sidewalk or thoroughfares.

The City’s Tree Preservation Ordinance (Municipal Code Chapter 12.32) protects all trees, regardless of species, that measure a minimum 10.5 inches in circumference, measured at a point 24 inches above the ground. The purpose of the Ordinance is provided below.

The primary concern of the City Council of the City is the regulation of large scale tree removal from undeveloped property in that large parcels of undeveloped acreage are more likely to have a vast number of trees, the removal of which is more likely to have an adverse effect upon the surrounding environment. Past destruction of trees on such property has not only interfered with the natural scenic beauty and tourism of the City, but also greatly diminished the ecological value of such natural vegetation.

Other areas of the Code related to aesthetics are not applicable to the proposed project because of the Planning Community (PC) zoning allows for the Specific Plan (SP) to create its own design standards. The Residential Infill Guideline does not apply to the proposed project because the proposed project is a subdivision consisting of more than four lots.

*Grading Guidelines*

The Orange City Council adopted the Guidelines for Landform Grading and Planting on April 12, 1988, which establishes policies designed to preserve visually significant ridgelines. Many of these ridgelines are identified on the General Plan Land Use Policy Map and no development or grading is permitted in areas so designated.

### 3.1.4 - Methodology

FCS evaluated potential project impacts on aesthetics, light, and glare through site reconnaissance and review of applicable plans and policies. FCS personnel visited the project site and surrounding land uses in December of 2016; documented the site conditions through photographs and notation;
and reviewed aerial photographs, topographical maps, street maps, project plans, and elevations to identify surrounding land uses and evaluate potential impacts from project development. The City of Orange General Plan was reviewed to determine applicable policies and design requirements for the Project. Project plans and design guidelines were reviewed to determine compliance with the requirements of the General Plan.

### 3.1.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, aesthetics impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Have a substantial adverse effect on a scenic vista?

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? (Refer to Section 7, Effects Found Not To Be Significant.)

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

### 3.1.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

#### Scenic Vistas

**Impact AES-1:** The project would not have a substantial adverse effect on a scenic vista.

**Impact Analysis**

The City of Orange’s General Plan EIR defines a scenic vista as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public.

The only portion of the project site that could be considered a scenic vista would be the Santiago Creek Trail along the north bank of Santiago Creek. (The trail passes through several heavily vegetated areas, which limits viewpoint opportunities.) The balance of the project site is closed to public access and secured with a fence.

A greenway would be established along the creek corridor and the undeveloped land along the north bank of the creek would be permanently protected as open space. Thus, scenic views from the Santiago Creek Trail would not be affected by the project.

Additionally, a trail network is proposed to be developed within the project site that would connect North Cannon Street and Santiago Oaks Regional Park. This would create new opportunities for scenic vistas.
In summary, the proposed project would not significantly impact designated scenic resources, including views of the project and from the project vicinity. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Visual Character**

| Impact AES-2: | The project would not substantially degrade the existing visual character or quality of the site and its surroundings. |

**Impact Analysis**

Implementation of the project would represent a change from disturbed undeveloped land to residential uses on approximately 40.7 acres of the western and southern portion of the site. Other areas of the project would be preserved for recreation and open space purposes. In addition, the project would include a multipurpose trail network for biking, hiking, and horseback that would connect North Cannon Street and Santiago Oaks Regional Park. The following discusses the potential visual character impacts of these proposed changes.

The approximately 109-acre site contains disturbed, undeveloped land that previously supported mining activities. The project proposes to develop approximately 40.7 acres of residential uses, and preserve the remaining acreage for recreation and open space. Natural vegetation within the site is primarily located along Santiago Creek. There are 323 trees located within the project site, with the most common species being blue gem (eucalyptus), oak, willow, and palm.

The residential uses would occupy the 40.7 acres in the southern and western portion of the site between Santiago Creek and East Santiago Canyon Road. This area coincides with the former mining area and the oval-shaped raised pad. Open space and residential uses would occupy the balance of the project site. Santiago Creek and the area north of the creek would be permanently preserved as greenway.

The area located south of the creek and west of the residential uses would be occupied by open space and recreation uses. This latter area would serve as a buffer between the adjoining Villa Park Landfill and the proposed residential uses. Additionally, a trail would be developed along the south bank of Santiago Creek that would connect North Cannon Street and Santiago Oaks Regional Park.

While development of the residences on site would change the character of approximately 40.7 acres of the project site to residential uses, and the remaining acreage to open space and recreation, these changes would not result in a significant impact. In addition, the residential development area would be compatible with surrounding uses and consistent with City policies related to aesthetics.
Therefore, the project would not substantially degrade the visual quality of the project area or its surroundings, and impacts related to changed character would be considered less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Light and Glare**

| Impact AES-3: | The project may create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. |

**Impact Analysis**

The proposed project would install exterior lighting fixtures for safety and security purposes. Lighting would consist of building-mounted and freestanding fixtures around buildings, along drive aisles and along pedestrian routes.

Orange Municipal Code Chapter 17.12.030 regulates the installation of new exterior lighting fixtures and requires that they be directed, controlled, screened or shaded in such a manner as not to shine directly on surrounding premises. Furthermore, lighting on any residential property must be controlled so as to prevent glare or direct illumination of any public sidewalk or thoroughfares. The proposed project has the potential to use construction materials, solar panels and window glazing that have the potential to increase light and glare. However, the proposed project’s lighting shall be controlled to prevent glare and illumination within outside areas of the project site. Therefore, Mitigation Measure AES-3 requires the applicant to prepare and submit a lighting plan to the City of Orange for review and approval that complies the Municipal Code requirements. In summary, the City of Orange establishes restrictions on outdoor lighting that require fixtures to be directed downward, and of appropriate intensity. This would ensure that outdoor lighting associated with the proposed project would not create adverse spillover impacts onto adjoining uses or interfere with aviation activities. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM AES-3** Prior to issuance of building permits, the project applicant shall prepare and submit lighting plans to the City of Orange for review and approval. The plans shall demonstrate that all exterior lighting fixtures comply with Orange Municipal Code Chapter 17.12.030, which requires that new light fixtures be directed, controlled, screened or shaded in such a manner as not to shine directly on surrounding
premises. Additionally, lighting on any residential property must be controlled so as to prevent glare or direct illumination of any public sidewalk or thoroughfares.

**Level of Significance After Mitigation**

Less than significant impact.
3.2 - Agriculture Resources and Forest Resources

This section describes the existing agricultural resources and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based in part on information provided by the California Department of Conservation Farmland Mapping and Monitoring Program, the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey, the California Department of Conservation’s Williamson Act and Farmland Mapping and Monitoring Program, and the City of Orange General Plan.

3.2.1 - Existing Conditions

Land Use Activities

The project site has supported surface mining activities (aggregate) and currently supports sand and gravel operations and materials recycling (such as asphalt and concrete crushing). The remaining portions of the project site are undeveloped.

Agricultural production intermittently occurred on the project site with the most recent production occurring from approximately 1993 through 2004. Agricultural production included fruit orchards and strawberry production. All agricultural uses on the site ceased in 2004. Additionally, the project site has also been used intermittently for storage of firewood and green waste recycling.

Farmland Mapping

The California Department of Conservation Farmland Mapping and Monitoring Program maps the project site as “Other Land,” which is a non-agricultural land use designation. Exhibit 3.2-1 depicts the Farmland Mapping and Monitoring Program mapping for the project vicinity.

Williamson Act Contracts

The project site does not support agricultural land use activities and therefore is not eligible for a Williamson Act contract.

Agricultural Zoning

The City of Orange Zoning Ordinance zones the project site “S-G (Sand and Gravel Extraction)” and “R-1-8 (Single-Family Residential 8,000 square-feet).” The S-G Zoning is a non-agricultural zoning district. The R-1-8 zoning allows agriculture/horticulture by-right, as well as tree and shrub farms through a conditional use permit.

3.2.2 - Regulatory Setting

State Regulations

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965 (Williamson Act) enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to maintain agricultural or related open space use. As an incentive, landowners receive lower property...
tax assessments based on agricultural or open space land uses, as opposed to the real estate value of the land. No land within the City of Orange is currently under a Williamson Act contract.

**California Department of Conservation Classification**

The California Department of Conservation (CDC), Division of Land Resource Protection developed the Farmland Mapping and Monitoring Program (FMMP) in 1984 to analyze impacts to California’s agricultural resources. In the FMMP, land ratings are based on a land capability classification system, and land use. According to FMMP (2014), the project site has an agricultural land rating of “Other Land.”

**Public Resources Code**

The California Public Resource Codes Section 4562 defines Forest Land and Timber Land as follows:

**Forest Land**

Land that can support 10-percent native tree cover of any species, including: hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

**Timber Land**

Land, other than land owned by the federal government and land designated by the Board of Forestry and Fire Protection (Board) as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the Board on a District basis after consultation with the District committees and others.

**Local**

**City of Orange**

There are no City General Plan goals or policies that pertain to farmland and forest land.

**3.2.3 - Thresholds of Significance**

According to CEQA Guidelines Appendix G, to determine whether impacts to agriculture and forestry resources are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract?

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g))?
Legend

- Project Site
- Urban and Built-Up Land
- Other Land

Exhibit 3.2-1
Land Use Classification Map

Source: CA Dept of Conservation - Important Farmland Data 2014.
d) Result in the loss of forest land or conversion of forest land to non-forest use?

e) Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use or the conversion of forest land to non-forest use?

3.2.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Convert Farmland to Non-Agricultural Use

Impact AFR-1: The project would not convert Important Farmland to non-agricultural use.

Impact Analysis

Agricultural land use activities occurred on the project site as recently as 2004; however, the project site does not currently support agricultural activities. As shown in Exhibit 3.2-1, the project site is mapped as containing “Other Land” by the California Department of Conservation Farmland Mapping and Monitoring Program, which is a non-agricultural land use designation. Therefore, the development of the proposed project would not result in the conversion of Important Farmland to non-agricultural use. No impacts would occur.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Conflict with Existing Zoning or Williamson Act Contract

Impact AFR-2: The project would not conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract.

Impact Analysis

The project site does not support agricultural land use activities and, therefore, is not eligible for a Williamson Act contract. The City of Orange Zoning Ordinance zones the project site “S-G (Sand and Gravel Extraction)” and “R-1-8 (Single-Family Residential 8,000 square-feet).” The S-G is a non-agricultural zoning district. The R-1-8 zoning allows agriculture/horticulture by-right, as well as tree and shrub farms through a conditional use permit. The proposed project would rezone the project site to Specific Plan (SP), which represent non-agricultural zoning. Thus, no conflicts with agricultural zoning would occur.
Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Forest Zoning

Impact AFR-3: Forest: The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g)).

Impact Analysis
The project site is not currently zoned as forest land, timberland, or timberland zoned timberland production as defined by Public Resources Code sections 1220(g), 4526, or 51104(g). The project site is currently zoned for R-1-8 (Single-Family Residential) and S-G (Sand and Gravel Extraction). Therefore, the proposed project would not conflict with existing zoning for, or cause the rezoning of forest land, timberland, or timberland zoned timberland production. Thus, no impacts would occur as a result of the proposed project.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Loss or Conversion of Forest Land

Impact AFR-4: The project would not result in the loss of forest land or conversion of forest land to non-forest use.

Impact Analysis
The project site contains disturbed, undeveloped land that previously supported mining activities. There are 323 trees within the project site, of which the most common species are blue gum (eucalyptus), oak, willow, and palm. The trees within the project site do not meet Public Resources Code criteria for “timberland” because they are not commercial species used to produce lumber or other forest products. Additionally, they do not meet the Public Resource Code definition of “forest land” because they do not meet the minimum density requirements to be classified as forest land.
Thus, tree removal activities would not result in the conversion of timberland to non-timber use or forest land to non-forest use. No impacts would occur.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Other Changes to Agricultural or Forest Land**

| Impact AFR-5: | Forest: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of agricultural land to non-agricultural use or forest land to non-forest use. |

**Impact Analysis**
Neither the project site nor surrounding land uses support agricultural land or timberland. This condition precludes the possibility of the proposed project creating pressures to convert farmland or timberland in the project vicinity to non-agricultural use. No impact would occur.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
3.3 - Air Quality

This section describes the existing air quality setting and potential effects from project implementation on the site and its surrounding area. Additionally, this section evaluates the possible impacts related to air quality that could result from implementation of the proposed project. Information included in this section is based on project-specific air quality modeling results utilizing California Emissions Estimator Model (CalEEMod) Version 2016.3.2 and the United States Environmental Protection Agency (EPA) AERMOD air dispersion model (Version 9.6.1); complete modeling output is provided in Appendix F.

3.3.1 - Environmental Setting

South Coast Air Basin

The project is located in the City of Orange and is within the South Coast Air Basin (SoCAB). The San Gabriel, San Bernardino, and San Jacinto Mountains bound the SoCAB on the north and east while the Pacific Ocean lies to the west of the SoCAB. The southern limit of the SoCAB is the San Diego County line. The SoCAB consists of Orange County, Los Angeles County (except for the Antelope Valley), the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

Sensitive receptors represent the locations where potential project-related impacts are estimated and can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors where individuals can be located for time periods of 24 hours or longer.

There are a number of existing residences near the project site. The closest existing residences are located to the east of the project site along River Birch Circle and Sycamore Glen Dr. The Salem Lutheran School is located approximately 600 feet to the south of the project across the East Santiago Canyon Rd. The shortest distances between existing sensitive receptors and the construction site ranges from 25 meters to 35 meters (82 to 115 feet).

Regional Climate

The regional climate factors such as the temperature, wind, humidity, precipitation, and amount of sunshine have a substantial influence on air quality in the SoCAB. The annual average temperatures throughout the SoCAB vary from the low to middle 60s (degrees Fahrenheit [°F]). Because of a decreased marine influence, the eastern portion of the SoCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SoCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SoCAB have recorded maximum temperatures above 100°F.

Although the climate of the SoCAB can be characterized as semi-arid, the air near the land surface is relatively humid on most days because of the presence of a marine layer from the Pacific Ocean. This shallow layer of sea air is an important modifier of SoCAB climate. Humidity restricts visibility in the SoCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative...
humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SoCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature of the coastal areas. These effects decrease with distance from the coast.

More than 90 percent of the SoCAB’s rainfall occurs from November through April. The annual average rainfall varies from approximately 9 inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SoCAB with frequency being higher near the coast.

Because of its generally clear weather, about three-quarters of available sunshine is received in the SoCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14.5 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SoCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed “Santa Ana Winds” each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze, and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean, and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over Southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SoCAB is the “Catalina Eddy,” a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island, which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SoCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SoCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically
only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as oxides of nitrogen (NOx) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

**Existing Local Air Quality**

Existing ambient air quality, historical trends, and future projections of air quality in the project area are best documented from measurements made near the project site. The South Coast Air Quality Management District (SCAQMD) maintains an extensive air-morning network that measures levels of several air pollutants throughout the SoCAB. Air quality in the SoCAB continues to improve over the long term, although the maximum concentration and number of days each year in which some standards are exceeded fluctuates from year to year due to weather conditions.

The SCAQMD has subdivided the SoCAB into 36 Source-Receptor Areas (SRAs), many containing one or more monitoring stations. These SRAs are designated to provide a general representation of the local meteorology, terrain, and air quality conditions within the particular geographical area. The project is located within the SRA 17 (Central Orange County). The nearest SCAQMD operated monitoring station to the project site where pollutant data are collected is the Pampas Lane Anaheim station in Anaheim, California, located about 7.5 miles east of the project site. Table 3.3-1 summarizes published monitoring data for the time period of 2014 through 2016. The data show that during the past few years, the project area has exceeded the state and/or federal ambient air quality standards for ozone, particulate matter PM10 and PM2.5. The pollutant levels from SRA 17 were used to represent a “background” air quality for the project location.

**Table 3.3-1: Air Quality Monitoring Summary**

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<td><strong>Ozone</strong></td>
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<td></td>
<td>Days &gt; National Standard (0.07 ppm)</td>
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<td>4</td>
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<td><strong>Carbon monoxide</strong></td>
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<td></td>
<td>Days &gt; State Standard (9.0 ppm)</td>
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<td></td>
<td>Days &gt; National Standard (9 ppm)</td>
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<td></td>
<td>98th Percentile</td>
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<td>0.0598</td>
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### Table 3.3-1 (cont.): Air Quality Monitoring Summary

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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual</td>
<td>Annual Average (µg/m³)</td>
<td>26.7</td>
<td>25.3</td>
<td>24.4</td>
</tr>
<tr>
<td>Inhalable</td>
<td></td>
<td>24 Hour (µg/m³)</td>
<td>85.0</td>
<td>59.0</td>
<td>74.0</td>
</tr>
<tr>
<td>coarse</td>
<td></td>
<td>Days &gt; State Standard (50 µg/m³)</td>
<td>2</td>
<td>2</td>
<td>ID</td>
</tr>
<tr>
<td>particles</td>
<td></td>
<td>Days &gt; National Standard (150 µg/m³)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(PM₁₀)</td>
<td>24 hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine</td>
<td></td>
<td>Annual Average (µg/m³)</td>
<td>16.1</td>
<td>14.8</td>
<td>9.4</td>
</tr>
<tr>
<td>particulate</td>
<td></td>
<td>24 Hour (µg/m³)</td>
<td>45.0</td>
<td>45.8</td>
<td>44.4</td>
</tr>
<tr>
<td>matter</td>
<td>Annual</td>
<td>Days &gt; National Standard (35 µg/m³)</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>(PM₂.₅)</td>
<td>24 Hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- > = exceed ppm = parts per million µg/m³ = micrograms per cubic meter
- ID = insufficient data ND = no data max = maximum
- State Standard = California Ambient Air Quality Standard
- National Standard = National Ambient Air Quality Standard
- Source: Air quality data from the Fontana Arrow monitoring station, and SCAQMD historical ambient air quality summaries.

The current attainment designations for the SoCAB are shown in Table 3.3-2. The SoCAB is designated as nonattainment for the state and/or federal ozone, PM₁₀, and PM₂.₅ standards. The Los Angeles County portion of the SoCAB is in nonattainment for lead; however, the project area is in attainment for lead.

### Table 3.3-2: SoCAB Attainment Status

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>State Status</th>
<th>National Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>Nonattainment</td>
<td>Nonattainment—Extreme</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Attainment</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>Nitrogen dioxide</td>
<td>Attainment</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Nonattainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Nonattainment</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>Lead</td>
<td>Attainment</td>
<td>Nonattainment (Los Angeles County Only)</td>
</tr>
<tr>
<td>Sulfates</td>
<td>Attainment</td>
<td>No national standard</td>
</tr>
<tr>
<td>Visibility Reducing Particles</td>
<td>Unclassified</td>
<td>No national standard</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>Unclassified</td>
<td>No national standard</td>
</tr>
</tbody>
</table>

Source of State status: ARB 2016b.
Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. For those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined, and for which the State and federal governments have set ambient air quality standards. The majority of the estimated health risk from TACs can be attributed to a relatively few compounds, the most important being particulate matter (PM) from diesel-fueled engines, known as diesel particulate matter (DPM). In addition to DPM, benzene and 1,3 butadiene are also significant contributors to overall ambient public health risk in California.

The health risks can be defined in terms of the probability of developing cancer as a result of exposure to carcinogens at a given concentration. The Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA Guidance) recommends the incorporation of several factors to quantify the carcinogenic compound dose via the inhalation pathway which is the most important pathway for exposures to airborne TACs.

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program (ARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory’s particulate matter less than 10 microns in diameter (PM$_{10}$) database, ambient PM$_{10}$ monitoring data, and the results from several studies to estimate concentrations of DPM.
Odors

Odors can cause a variety of responses. The impact of an odor results from interacting factors, such as frequency (how often), intensity (strength), duration (in time), offensiveness (unpleasantness), location, and sensory perception.

Odor is typically a warning system that prevents animals and humans from consuming spoiled food or toxic materials. Odor-related symptoms reported in a number of studies include nervousness, headache, sleeplessness, fatigue, dizziness, nausea, loss of appetite, stomach ache, sinus congestion, eye irritation, nose irritation, runny nose, sore throat, cough, and asthma exacerbation (SCAQMD 2007b).

The SCAQMD’s role is to protect the public’s health from air pollution by overseeing and enforcing regulations. The SCAQMD’s resolution activity for odor compliance is mandated under California Health & Safety Code Section 41700, and falls under SCAQMD Rule 402. This rule on Public Nuisance Regulation states: “A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.”

The SCAQMD indicates that the number of overall complaints has declined over the last five years. Over the last four years, odor complaints make up 50 to 55 percent of the total nuisance complaints. Over the past decade, odors from paint and coating operations have decreased from 27 to 7 percent, and odors from refuse collection stations have increased from 9 to 34 percent.

Local Sources of Air Pollutants

The project site is largely vacant. Therefore, the only emissions from the current site would consist of fugitive windblown dust. The project site is surrounded by numerous residences within a radius of 0.5 mile. Emissions from the surrounding residences include the following: space and water heating, landscape maintenance, and motor vehicles.

3.3.2 - Regulatory Framework

Air Quality Regulations

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The EPA regulates at the national level. The ARB regulates at the state level and SCAQMD regulates at the air basin level.

Federal and State

The EPA handles global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards or national standards. There are
national standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970. The criteria pollutants are:

- Ozone
- Particulate matter (PM_{10} and PM_{2.5})
- Nitrogen dioxide
- Carbon monoxide
- Lead
- Sulfur dioxide

The national standards were set to protect public health, including that of sensitive individuals; thus, the standards are periodically updated as more medical research is available regarding the health effects of the criteria pollutants. Primary national standards are the levels of air quality necessary, with an adequate margin of safety, to protect public health, as discussed in Table 3.3-3 below.

A State Implementation Plan (SIP) is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain national standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. The ARB also administers California Ambient Air Quality Standards for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six national standards listed above as well as the following: visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

The national and state ambient air quality standards, the most relevant effects, the properties, and sources of the pollutants are summarized in Table 3.3-3.
<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>1 Hour</td>
<td>0.09 ppm</td>
<td>—</td>
<td>Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.</td>
<td>Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), nitrous oxides (NO&lt;sub&gt;x&lt;/sub&gt;), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.</td>
<td>Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO&lt;sub&gt;x&lt;/sub&gt;) are mobile sources (on-road and off-road vehicle exhaust).</td>
</tr>
<tr>
<td></td>
<td>8 Hour</td>
<td>0.070 ppm</td>
<td>0.075 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon monoxide (CO)</td>
<td>1 Hour</td>
<td>20 ppm</td>
<td>35 ppm</td>
<td>Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.</td>
<td>CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.</td>
<td>CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.</td>
</tr>
<tr>
<td></td>
<td>8 Hour</td>
<td>9.0 ppm</td>
<td>9 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen dioxide&lt;sup&gt;b&lt;/sup&gt; (NO&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>1 Hour</td>
<td>0.18 ppm</td>
<td>0.100 ppm</td>
<td>Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contributions to atmospheric discoloration; increased visits to hospital for respiratory illnesses.</td>
<td>During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO&lt;sub&gt;x&lt;/sub&gt; (NO, NO&lt;sub&gt;2&lt;/sub&gt;, NO&lt;sub&gt;y&lt;/sub&gt;, N&lt;sub&gt;2&lt;/sub&gt;O, N&lt;sub&gt;2&lt;/sub&gt;O&lt;sub&gt;y&lt;/sub&gt;, N&lt;sub&gt;2&lt;/sub&gt;O&lt;sub&gt;4&lt;/sub&gt;, and N&lt;sub&gt;2&lt;/sub&gt;O&lt;sub&gt;5&lt;/sub&gt;). NO&lt;sub&gt;x&lt;/sub&gt; is a precursor to ozone, PM&lt;sub&gt;10&lt;/sub&gt;, and PM&lt;sub&gt;2.5&lt;/sub&gt; formation. NO can react with compounds to form nitric acid and related small particles and result in PM related health effects.</td>
<td>NO&lt;sub&gt;x&lt;/sub&gt; is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide forms quickly from NO&lt;sub&gt;x&lt;/sub&gt; emissions. NO&lt;sub&gt;2&lt;/sub&gt; concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.</td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>0.030 ppm</td>
<td>0.053 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3.3-3 (cont.): Description of Air Pollutants

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur dioxide (SO₂)</td>
<td>1 Hour</td>
<td>0.25 ppm</td>
<td>0.075 ppm</td>
<td>Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.</td>
<td>Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SOₓ) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM₁₀.</td>
<td>Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.</td>
</tr>
<tr>
<td></td>
<td>3 Hour</td>
<td>—</td>
<td>0.5 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>0.04 ppm</td>
<td>0.14 (for certain areas)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>—</td>
<td>0.030 ppm (for certain areas)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particulate matter (PM₁₀)</td>
<td>24 hour</td>
<td>50 µg/m³</td>
<td>150 µg/m³</td>
<td>• Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias.</td>
<td>Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM₁₀ refers to particulate matter that is between 2.5 and 10 microns in diameter, (one micron is one-millionth of a meter). PM₂.₅ refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.</td>
<td>Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>20 µg/m³</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particulate matter (PM₂.₅)</td>
<td>24 Hour</td>
<td>—</td>
<td>35 µg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>12 µg/m³</td>
<td>12.0 µg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visibility reducing particles</td>
<td>8 Hour</td>
<td>See note below</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3.3-3 (cont.): Description of Air Pollutants

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfates</td>
<td>24 Hour</td>
<td>25 µg/m³</td>
<td>—</td>
<td>(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.</td>
<td>The sulfate ion is a polyatomic anion with the empirical formula ( \text{SO}_4^{2-} ). Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.</td>
<td>Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.</td>
</tr>
<tr>
<td>Lead&lt;sup&gt;a&lt;/sup&gt;</td>
<td>30-day</td>
<td>1.5 µg/m³</td>
<td>—</td>
<td>Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.</td>
<td>Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.</td>
<td>Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.</td>
</tr>
<tr>
<td></td>
<td>Quarter</td>
<td>—</td>
<td>1.5 µg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rolling 3-month average</td>
<td>—</td>
<td>0.15 µg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride&lt;sup&gt;b&lt;/sup&gt;</td>
<td>24 Hour</td>
<td>0.01 ppm</td>
<td>—</td>
<td>Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.</td>
<td>Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.</td>
<td>Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.</td>
</tr>
</tbody>
</table>

<sup>a</sup> The sulfate ion is a polyatomic anion with the empirical formula \( \text{SO}_4^{2-} \). Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water. 

<sup>b</sup> Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982. 

<sup>c</sup> Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor. 

<sup>d</sup> Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Table 3.3-3 (cont.): Description of Air Pollutants

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard*</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen sulfide</td>
<td>1 Hour</td>
<td>0.03 ppm</td>
<td>—</td>
<td>High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.</td>
<td>Hydrogen sulfide (H2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.</td>
<td>Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td>There are no State or federal standards for VOCs because they are not classified as criteria pollutants.</td>
<td>There are no State or federal standards for VOCs because they are not classified as criteria pollutants.</td>
<td>Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.</td>
<td>Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—including carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.</td>
<td>Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM$_{10}$ and lower visibility.</td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>There are no ambient air quality standards for benzene.</td>
<td>There are no ambient air quality standards for benzene.</td>
<td>Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer.</td>
<td>Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” carcinogen.</td>
<td>Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at one to two percent by volume. The primary route of human exposure is through inhalation.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.3-3 (cont.): Description of Air Pollutants

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard(^a)</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel particulate matter (DPM)</td>
<td></td>
<td></td>
<td></td>
<td>Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.</td>
<td>Diesel PM is a source of PM(_{2.5})—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.</td>
<td>Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.</td>
</tr>
</tbody>
</table>

**Notes:**

- ppm = parts per million (concentration)  
- µg/m\(^3\) = micrograms per cubic meter  
- Annual = Annual Arithmetic Mean  
- 30-day = 30-day average  
- Quarter = Calendar quarter  

- Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3-Hour SO\(_2\), which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

- To attain the 1-hour nitrogen dioxide national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (0.100 ppm).

- On June 2, 2010, a new 1-hour SO\(_2\) standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO\(_2\) national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

- Visibility reducing particles: In 1989, ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

- ARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Federal Regulations

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for ozone (O₃), CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM₁₀), and lead. The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the ARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O₃, NO₂, SO₂, PM₁₀, CO, PM₂·₅, and lead. The NAAQS were amended in July 1997 to include an additional standard for O₃ and to adopt a NAAQS for PM₂·₅.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NOₓ. NOₓ is a collective term that includes all forms of nitrogen oxides (NO, NO₂, NO₃), which are emitted as byproducts of the combustion process.

State Regulations

California Air Resources Board (ARB)

The ARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act (CAA) (Assembly Bill [AB] 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The ARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SoCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS. Table 3.3-3 provides listing of the federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants. Several pollutants listed in Table 3.3-3 are not addressed in this analysis. Analysis of lead is not included in this report.
because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because project uses do not use the chemical processes that create this pollutant, and there are no such uses in the project vicinity. The project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

The ARB has adopted a number of regulatory programs aimed at specifically reducing toxics air contaminant emissions. These programs include the following.

**Diesel Risk Reduction Plan**

In September 2000, the ARB adopted the Diesel Risk Reduction Plan (Diesel RRP or Plan), which recommends many control measures to reduce the risks associated with DPM and achieve a goal of 75 percent PM reduction by 2010 and 85 percent by 2020 (ARB 2000). The Plan involves the implementation of:

- New regulatory standards for on-road, off-road, and stationary diesel-fueled engines and vehicles
- New retrofit requirements for existing on-road, off-road, and stationary diesel-fueled engines and vehicles were determined to be technically feasible and cost-effective; and
- New Phase 2 diesel fuel regulations to reduce the sulfur content levels of diesel fuel to no more than 15 ppm to provide the quality of diesel fuel needed by the advanced diesel PM emission controls

The Plan set into motion a series of emission reduction regulations and control measures as discussed below.

**Emission Reduction Funding**

**Carl Moyer Memorial Air Quality Standards Attainment Program.** Since 1998, the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) has provided funding to encourage the voluntary purchase of cleaner engines, equipment, and emission reduction technologies. The Carl Moyer Program plays a complementary role to California’s regulatory program by funding emission reductions that are surplus, i.e., early and/or in excess of what is required by regulation. The Carl Moyer Program accelerates the turnover of old highly polluting engines, speeds the commercialization of advanced emission controls, and reduces air pollution impacts on environmental justice communities. Emission reductions achieved through the Carl Moyer Program are an important component of the California SIP.

**Regulation for Construction-Related Equipment**

**Airborne Toxic Control Measure for DPM from Portable Engines Rated at 50 horsepower and Greater.** The purpose of this measure is to reduce DPM emissions from portable diesel-fueled engines with a horsepower of 50 or greater. Each fleet is required to comply with weighted reduced particulate matter emission fleet averages by compliance dates listed in 17 California Code of Regulations Section 93116. Portable equipment includes but is not limited to, air compressors,
generators, concrete pumps, tub grinders, wood chippers, water pumps, drill rigs, pile drivers, rock drills, abrasive blasters, aggregate screening and crushing plants, concrete batch plants, and welders.

**ARB Regulation for In-Use Off-Road Diesel Vehicles (Off-Road Regulation), Title 13, Article 4.8, Chapter 9, Section 2449 in the California Code of Regulations.** On July 26, 2007, the ARB adopted a regulation to reduce particulate matter and NOX emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. All self-propelled off-road diesel vehicles over 25 horsepower (hp) used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to this regulation. This includes vehicles that are rented or leased (rental or leased fleets). Such vehicles are used in construction, mining, and industrial operations. The Off-Road regulation:

- Imposes limits on idling (no more than five consecutive minutes) and requires a written idling policy;
- Requires a disclosure when selling vehicles;
- Requires all vehicles to be reported to ARB (using the Diesel Off-Road Online Reporting System, DOORS) and labeled;
- Restricts adding older equipment into fleets; and
- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).

**Regulations for Heavy-Duty Vehicles/Trucks**

**ARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling** adopts new section 2485 within Chapter 10, Article 1, Division 3, title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles (i.e., commercial trucks over 10,000 pounds) to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle’s primary diesel engine for greater than five minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

**ARB Requirements to Reduce Idling Emissions from New and In-Use Trucks.** Amendments were made to Title 13 in California Code of Regulations in Sections 1956.8, 2404, 2424, 2425, and 2485. The amendment states: “all new 2008 and subsequent model-year heavy-duty diesel engines shall be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to ‘neutral’ or ‘park,’ and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to ‘neutral’ or ‘park.’” There are a few conditions where the engine shutdown system can be overridden to prevent engine damage. Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.
**Statewide Truck and Bus Regulation** (Regulation to Reduce Emissions of DPM, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles, Title 13, California Code of Regulations, Section 2025). On December 12, 2008, the ARB approved this regulation to reduce emissions from existing on-road diesel trucks and buses operating in California. This regulation applies to all on-road heavy-duty diesel-fueled vehicles with a gross vehicle weight rating greater than 14,000 pounds, agricultural yard trucks with off-road certified engines, and certain diesel fueled shuttle vehicles of any gross vehicle weight rating. Out-of-state trucks and buses that operate in California are also subject. Under the regulation, older, heavier trucks (i.e. those with pre-2000 year engines and a gross vehicle weight rating greater than 26,000 pounds), are required to have installed a particulate matter filter and must be replaced with a 2010 engine between 2015 and 2020, depending on the model year. By 2015, all heavier pre-1994 trucks must be upgraded to 2010 engines and newer trucks are thereafter required to be replaced over the next eight years. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean 2007-2009 engines are not required to be replaced until 2023. Lighter trucks (14,001-26,000 pounds) must adhere to a similar schedule. Furthermore, nearly all trucks that are not required under the Truck and Bus Regulation to be replaced by 2015 are required to be upgraded with a particulate matter filter by that date.

**California Health and Safety Code Section 42301.6 to 42301.9**

This state code section addresses sources of hazardous air pollutants near schools. It requires new or modified sources of hazardous air emissions located within 1,000 feet from the outer boundary of a school to give public notice to the parents or guardians of children enrolled in any school located within one-quarter mile of the source and to each address within a 1,000-foot radius.

**Regional Regulations**

**South Coast Air Quality Management District**

Local air quality management districts such as the SCAQMD regulate air emissions from stationary and area-wide sources of emissions and to limited extent from mobile sources. All air pollution control districts have been formally designated attainment or non-attainment for each CAAQS. The project is located within the SCAQMD and, therefore, is subject to its rules and regulations.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources.

- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development).

- An air district permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions.

- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled.
• Significant use of low emissions vehicles by fleet operators.

• Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROGs, NOx, CO and PM10. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2016 AQMP

On March 3, 2017, the SCAQMD adopted the 2016 AQMP. The 2016 AQMP address strategies and measures to attain the 2008 federal 8-hour ozone standard by 2032, the 2012 federal annual PM2.5 standard by 2021 to 2025, and the 2006 federal 24-hour PM2.5 standard by 2019. The 2016 AQMP also examined the regulatory requirements for attaining the 2015 federal 8-hour ozone standard. The 2016 AQMP also updates previous attainment plans for ozone and PM2.5 that have not yet been met (SCAQMD 2016). In general, the AQMP is updated every 3 to 4 years. However, the air quality planning process for the AQMP is continuous and each iteration is an update of the previous plan.

To ensure air quality goals will be met while minimizing impacts to the regional economy, the following policy objectives guided the development of the plan:

• Eliminate reliance on “black box” (future technologies) to the maximum extent possible by providing specific pathways to attainment with specific control measures.

• Calculate and take credit for co-benefits from other planning efforts (e.g., Greenhouse Gas (GHG) reduction targets, energy efficiency, transportation).

• Develop a strategy with fair-share emission reductions at the federal, state, & local levels such as a new federal engine emission standards and/or additional authority provided to the state or SCAQMD for mobile sources.

• Seek significant funding for incentives to implement early deployment and commercialization of known zero and near-zero technologies.

• Invest in strategies and technologies meeting multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation.

• Enhance the socioeconomic analysis and select the most efficient and cost-effective path to achieve multi-pollutant and multi-deadline targets.

• Prioritize non-regulatory, innovative and “win-win” approaches for emission reductions.

The 2016 AQMP also demonstrates attainment of the 2008 Ozone Standard in Coachella Valley by 2026. The Plan also demonstrates compliance with all applicable Federal Clean Air Act requirements pertaining to nonattainment areas pursuant to the EPA approved Implementation Rules, such as the annual average and summer planning emission inventory for criteria and precursor pollutants, attainment demonstrations, reasonably available control measure and reasonably available control technology analyses, reasonable further progress, particulate matter precursor requirements, vehicle miles traveled (VMT) demonstrations, and transportation conformity budgets for SoCAB and Coachella Valley.
The control measures in the 2016 AQMP are based on implementing all feasible control measures through the accelerated deployment of available cleaner technologies, best management practices, co-benefits from existing programs, and incentive measures. The 2016 AQMP control measures consist of three main components: (1) the SCAQMD’s Stationary and Mobile Source Control Measures; (2) suggested state and federal Source Control Measures; and (3) Regional Transportation Plan Transportation Control Measures provided by Southern California Association of Governments. These measures rely on not only the traditional command-and-control approach, but also public incentive programs, as well as advanced technologies expected to be developed and deployed in the next several years.

**Air Quality Management Plans**

An Air Quality Management Plan (AQMP) is a plan prepared and implemented by an air pollution district for a county or region designated nonattainment for the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an area where one or more ambient air quality standards are exceeded. The AQMPs prepared by the various air districts within the State are then assembled to form the SIP.

**South Coast Air Quality Management District Rules**

The AQMP for the air basin establishes a program of rules and regulations administered by SCAQMD necessary to attain the state and national air quality standards. The rules and regulations that apply to this project include, but are not limited to, the following:

**SCAQMD Rule 402**

Prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

**SCAQMD Rule 403**

Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 miles per hour (mph), and establishing a permanent ground cover on finished sites.

**SCAQMD Rule 481**

Applies to all spray painting and spray coating operations and equipment. This rule would apply to the application of architectural coatings to the exterior and interior of the building walls. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

1. The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new
construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.

(2) Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.

(3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108
Governs the sale, use, and manufacturing of asphalt and limits the VOC content in asphalt used in the SoCAB. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113
Governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143
Governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186
Limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303
Governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM$_{10}$ among other pollutants.

SCAQMD Rule 220
Sets forth “On-Road Motor Vehicle Mitigation Options” provides employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period, calculated as a monthly average.
Local

City of Orange

General Plan

The City of Orange General Plan contains the following goals and policies that address air quality and are applicable to the proposed project:

Natural Resources Element

- **Goal 2.0**: Protect air, water and energy resources from pollution and overuse.
- **Policy 2.1**: Cooperate with the SCAQMD and other regional agencies to implement and enforce regional air quality management plans.
- **Policy 2.2**: Support alternative transportation modes, alternative technologies and bicycle- and pedestrian-friendly neighborhoods to reduce emissions related to vehicular travel.
- **Policy 2.6**: Encourage sustainable building and site designs for new construction and renovation projects.

3.3.3 - Thresholds of Significance

According to the California Environmental Quality Act (CEQA) Guidelines’ Appendix G Environmental Checklist, the following questions are analyzed and evaluated to determine whether impacts to air quality are significant environmental effects:

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

d) Expose sensitive receptors to substantial pollutant concentrations?

e) Create objectionable odors affecting a substantial number of people?

This analysis will follow the guidance in the CEQA Guideline Amendments.

To assist in the establishment of a quantitative determination of what is considered “significant,” the SCAQMD has published a number of significance thresholds that apply to new projects constructed or operated within the SCAQMD. The SCAQMD recommends that lead agencies apply these thresholds in determining whether a proposed project would result in a significant air quality impact.

If the lead agency finds that a proposed project has the potential to exceed these air pollution thresholds, the project would be considered significant. These thresholds have been defined by...
SCAQMD for the SoCAB, based on scientific data the SCAQMD has obtained and factual data within the federal and state Clean Air Acts. Since the project is located within the SoCAB, these thresholds are applicable to this project. The SCAQMD has defined thresholds for oxides of nitrogen (NO_X), volatile organic carbon (VOC), oxides of sulfur (SO_X), CO, PM_{10}, and PM_{2.5}, hereinafter referred to as “criteria” pollutants, and for health risk in terms of cancer and non-cancer risk.

From the perspective of this analysis, four types of significance thresholds were evaluated in terms of impacts on air quality from the construction and operation of the project. These thresholds are the Regional Significance Thresholds, Local Significance Thresholds (LSTs), Health Risk Significance Thresholds, and CO “Hot Spot” Thresholds, which are discussed below.

### Regional Air Quality Significance Thresholds

The regional thresholds apply to all aspects of the project including construction and operations. The mass emission-based regional thresholds were established because a project’s emissions could potentially contribute to the basin’s regional emission burden and affect air quality many miles away from a project location. The SCAQMD recommends regional significance thresholds for VOC, NO_X, SO_X, CO, and particulate matter (PM_{10} and PM_{2.5}). Any construction or operational-related emissions from the project in excess of any of the thresholds presented in Table 3.3-4 would be considered to result in a significant impact.

#### Table 3.3-4: SCAQMD Regional Significance Thresholds

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Mass Daily Thresholds (lbs/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Construction</td>
</tr>
<tr>
<td>NO_X</td>
<td>100</td>
</tr>
<tr>
<td>VOC</td>
<td>75</td>
</tr>
<tr>
<td>PM_{10}</td>
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</tr>
<tr>
<td>SO_X</td>
<td>150</td>
</tr>
<tr>
<td>CO</td>
<td>550</td>
</tr>
</tbody>
</table>

Notes:
From SCAQMD CEQA Handbook (SCAQMD, 1993)
NO_X = nitrogen oxides
VOC = Volatile Organic Compounds
CO = carbon monoxide
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less;
PM_{2.5} = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers

### Local Air Quality Significance Thresholds (LSTs)

LSTs were developed in response to the SCAQMD Governing Board’s environmental justice (EJ) initiatives (EJ initiative 1–4) in recognition of the fact that criteria pollutants such as CO, NO_X, and PM_{10} and PM_{2.5} in particular, can have local impacts as well as regional impacts. The goal of
significance thresholds is to ensure that no source creates, or receptor endures, a significant adverse impact from any project. The evaluation of localized air quality impacts determines the potential to cause or contribute to an existing or new air quality violation, or expose sensitive receptors to substantial pollutant concentrations. LSTs represent the maximum emissions or air concentrations from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, at any nearby sensitive or worker receptor. LSTs are defined separately for construction and operational activities and are dependent upon location, project size, and distance to the sensitive receptor.

The SCAQMD created a series of lookup tables that present the maximum emission (e.g., the localized significance thresholds) that a project can emit without contributing to an existing or new air quality standard exceedance. The value of the LST depends on the project location, size of the project area, and distance to the nearest sensitive receptor. The project is located within SRA 17 (Central Orange County). Therefore, the LSTs for this SRA location were selected for the LST assessment.

In addition to the dependence on geographic location within the SCAQMD (e.g., the SRA), the localized thresholds also depend on the distance to the impacted receptor from the source of emissions. The distance to the nearest sensitive receptor is within 25 meters from the boundary of the project. Specifically, the closest sensitive receptor is located at 25 meters (82 feet) to the east of the project, at the corner along River Birch Circle.

**Construction**

During construction, the project size is generally represented as the maximum area disturbed during a day from which emissions are calculated. Based on the level of various activities during construction, the largest amount of area to be disturbed is expected to occur during grading of the project site. The emission lookup tables are used to identify the relevant construction LSTs.

**Operations**

During operational-activities, the project would generate on-site emissions including area sources and energy sources. Area sources would include activities such as landscape maintenance and occasional architectural coatings. Energy sources would include electricity and natural gas combustion for space and water heating. The emission lookup tables are used to identify the relevant operation LSTs. Because a majority of the project’s mobile-source emissions would occur on the local and regional roadway network away from the project, only the on-site area-, energy-, and mobile-source emissions were included in this analysis. A trip length of 0.5 mile was used in the modeling input assumptions to account for on-site emissions from mobile sources.

A significant impact would occur if a project’s construction or operational-related impacts exceed any of the LSTs.

**Health Risk Significance Thresholds**

In addition to the LSTs established above for criteria pollutants, the SCAQMD has also defined health risk significance thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to TACs. Cancer risk represents the probability (in terms of risk
per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a lifetime period of several years. The principal TAC emission analyzed in this assessment was the emission of DPM from the operation of off-road equipment and diesel-powered delivery and worker vehicles during construction. The derivation of the emissions from these sources and the assumptions used to estimate cancer risks are provided in Appendix F in this EIR.

As a point of reference, an individual located in an area with a cancer risk of 10 in one million would experience ten chances out of a population of one million of contracting cancer over lifetime period, assuming that individual lives in that area continuously for the entire time period. The SCAQMD recommends assessing cancer risks over a lifetime of 30 years. For purposes of this health risk assessment (HRA), the potential health risks resulting from project construction emissions were estimated over the 4.5 years of construction.

TACs can also cause chronic (long-term) and acute (short-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system effects, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health hazards from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of the project’s emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL).

The SCAQMD has established the following health risks thresholds:

**Project-Specific Health Risk Significance Thresholds**

The SCAQMD has established the following project-specific health risk significance thresholds:

- Maximum Incremental Cancer Risk $\geq 10$ in 1 million
- Hazard Index (project increment) $\geq 1.0$

A significant impact would occur if a project’s impacts exceeded any of these thresholds.

**Estimation of Cancer Risks**

As discussed in Section 3.3.1—Environmental Setting, OEHHA has developed Risk Assessment Guidelines for estimating cancer risks that provide adjustment factors that emphasize the increased sensitivities and susceptibility of human to exposures to TACs. The recommend method for the estimation of cancer risk is shown in the equations below for the duration of the construction time period (4.5 years),

$$\text{Cancer Risk} = C_{DPM} \times \text{Inhalation Exposure Factor} \quad \text{(EQ-1)}$$

Where:

- Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the

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background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

\[ C_{DPM} = \text{Period average DPM air concentration calculated from the air dispersion model in } \mu\text{g/m}^3 \]

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

\[
\text{Inhalation Exposure Factor} = CPF \times EF \times ED \times DBR \times AAF/AT \quad \text{(EQ-2)}
\]

where:

- \( CPF = \) Inhalation cancer potency factor for the TAC: 1.1 (mg/kg-day\(^{-1}\)) for DPM
- \( EF = \) Exposure frequency: 350 (days/year)
- \( ED = \) Exposure duration (4.5 years of construction)
- \( AT = \) Averaging time period over which exposure is averaged (days)
- \( AAF = \) set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)

The OEHHA recommended values for the various cancer risk parameters shown in the Equation 2 are shown in Table 3.3-5. Note, however, the SCAQMD has not officially adopted the updated OEHHA guidance for CEQA evaluations. However, the SCAQMD provides recommended values for the various cancer risk parameters as part of its procedures for demonstrating compliance with SCAQMD Rules 1401 and 212 that are also shown in Table 3.3-5.

### Table 3.3-5: Exposure Assumptions for Cancer Risk—Updated OEHHA Guidance

<table>
<thead>
<tr>
<th>Receptor Type</th>
<th>Exposure Frequency</th>
<th>Construction Exposure Duration (years)</th>
<th>Age Sensitivity Factors (ASF)</th>
<th>Time at Home Factor (TAH)(^{(1)}) (%)</th>
<th>Daily Breathing Rate (^{(2)}) (DBR) (L/kg-day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitive/Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3(^{rd}) Trimester</td>
<td>24</td>
<td>350</td>
<td>0.25</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>0–2 years</td>
<td>24</td>
<td>350</td>
<td>2</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>3–16 years</td>
<td>24</td>
<td>350</td>
<td>4.5</td>
<td>3</td>
<td>72</td>
</tr>
<tr>
<td>&gt;16–30 years</td>
<td>24</td>
<td>350</td>
<td>4.5</td>
<td>1</td>
<td>73</td>
</tr>
</tbody>
</table>

Notes:

\(^{(1)}\) Time at Home (TAH) factors recommended by the SCAQMD
\(^{(2)}\) The daily breathing rates recommended by the SCAQMD are the 95th percentile rate for sensitive/residential receptors 0 to 2 years

(L/kg-day) = liters per kilogram body weight per day

Source of Current OEHHA Guidance: OEHHA 2015 and SCAQMD 2015b

Source: Appendix F

The project site is surrounded by residences, and the closest sensitive receptor is located at 25 meters (82 feet) to the east of the project, at the corner along River Birch Circle. The Salem Lutheran
School is located approximately 600 feet to the south of the project across the East Santiago Canyon Road. The exposure frequency of the school students is 180 days, the age sensitive factor is 3, and the daily breathing rate is 520 liters/kg-day. All these parameters are lower than the parameters listed in Table 3.3-5. The inhalation exposure factor for students is lower than the factors for children at year 1-2. Therefore, the cancer risk assumptions shown in Table 3.3-5 are the most conservative assumptions. If the cancer risks are estimated based on the assumptions presented above and do not exceed the SCAQMD’s maximum incremental cancer risk, the project would not result in significant impact on human health cancer risks.

**Estimation of Non-Cancer Hazards**

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate REL. To calculate the HI, each chemical concentration or dose is divided by the appropriate toxicity reference exposure level. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist.

To quantify non-carcinogenic impacts, the HI approach was used.

\[
HI = \frac{C_{ann}}{REL} \quad (EQ-3)
\]

Where:

- \(HI\) = chronic hazard index
- \(C_{ann}\) = annual average concentration of TAC as derived from the air dispersion model (\(\mu g/m^3\))
- \(REL\) = reference exposure level above which a significant impact is assumed to occur (\(\mu g/m^3\))

For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a chronic non-cancer REL for DPM of 5 \(\mu g/m^3\). The principal toxicological endpoint assumed in this assessment was through inhalation.

**Cumulative Health Risk Significance Thresholds**

The AQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution.² In this report, the AQMD clearly states (page D-3):

The AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be

noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

### Air Dispersion Modeling

An air dispersion model is a mathematical formulation used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the EPA AERMOD (Version 9.6.1) air dispersion model that is approved by the SCAQMD for preparing air dispersion assessments. Specifically, the AERMOD model was used to estimate levels of air emissions at sensitive receptor locations from the project’s construction PM$_{10}$ exhaust emissions. The use of the AERMOD model provides a refined methodology for estimating construction impacts by utilizing long-term measured, representative meteorological data for the project site, construction area, and a representative construction schedule.

Three emission sources were used to represent the project’s DPM construction emissions. One source represented the generation of on-site construction DPM emissions (as PM$_{10}$ exhaust) from the off-road construction equipment, while the other two sources were used to represent the project’s off-site construction DPM emissions generated by construction vehicles. The emissions from the on-site source were represented in the AERMOD model as an area source, while the emissions from the two off-site sources were represented in the AERMOD as line volume sources. Construction vehicles were assumed to travel to the project site along East Santiago Canyon Rd to the east toward CA State Route 241 (50 percent), and the other 50 percent vehicles travel along East Santiago Canyon Rd to the west. The percentage of trips in each direction was estimated based on traffic impact analysis for operational vehicle trip distribution. Construction was assumed to take place on an 8-hour-per-day/5-day-per-week basis between the years 2020 and 2024.

Receptor locations within the AERMOD model were placed at locations of existing residences surrounding the project. The air dispersion model assessment used meteorological data from the SCAQMD John Wayne International Airport monitoring station for the years 2012–2016. All the receptors were placed within the breathing zone at zero meters above ground level.\(^3\)

### Carbon Monoxide “Hot Spot” Thresholds

The largest contributor of CO emissions during project operations is typically from motor vehicles. A CO hotspot represents a condition wherein high concentrations of CO may be produced by motor vehicles.

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vehicles accessing a congested traffic intersection under heavy traffic volume conditions. The CO hotspot thresholds are represented by the most restricted state or federal CO ambient air quality standards:

- 1-hour CO standard: 20 ppm (state), 35 ppm (federal); and
- 8-hour CO standard: 9 ppm (state/federal).

If the CO contributed by the project in combination with CO produced by non-project traffic exceeds the above standards, then the project would have a significant impact.

### 3.3.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the proposed project and provides mitigation measures where appropriate.

#### Consistency with Air Quality Management Plan

<table>
<thead>
<tr>
<th>Impact AIR-1:</th>
<th>The project may conflict with or obstruct implementation of the applicable air quality plan.</th>
</tr>
</thead>
</table>

**Impact Analysis**

To evaluate whether or not a project conflicts with, or obstructs the implementation of the applicable air quality plan (2017 AQMP for the SoCAB), the *SCAQMD CEQA Air Quality Handbook* states that there are two key indicators. These indicators are identified and discussed below.

1. **Indicator:** Whether the project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

2. **Indicator:** According to Chapter 12 of the *SCAQMD CEQA Air Quality Handbook*, the purpose of the General Plan consistency findings is to determine whether a project is inconsistent with the growth assumptions incorporated into the air quality plan, and thus, whether it would interfere with the region’s ability to comply with federal and California air quality standards.

Considering the recommended criteria in the CEQA Handbook, this analysis uses the following criteria to address this potential impact:

- **Criterion 1:** Project’s contribution to air quality violations (SCAQMD’s first indicator);
- **Criterion 2:** Assumptions in AQMP (SCAQMP’s second indicator); and
- **Criterion 3:** Compliance with applicable emission control measures in the AQMPs.

**Criterion 1: Project’s Construction to Air Quality Violations**

According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
As discussed in Impact AIR-2, construction-related activities would result in emissions of NOx that exceed SCAQMD’s significance thresholds on a daily basis prior to the application of mitigation. The operation of the project as discussed in Impact AIR-2 would not exceed the SCAQMD’s operational significance thresholds. Therefore, the project would result in a potentially significant impact during construction under Criteria 1.

**Criterion 2: Assumptions in AQMP**

According to Chapter 12 of the SCAQMD CEQA Air Quality Handbook, the purpose of the General Plan consistency finding is to determine whether a project is inconsistent with the growth assumptions incorporated into the air quality plan and thus, whether it would interfere with the region’s ability to comply with federal and California air quality standards.

The City of Orange designates the project site “Low Density Residential,” “Resource Area” and “Open Space.” The City of Orange Zoning Ordinance zones the project site “S-G (Sand and Gravel Extraction)” and “R-1-8 (Single-Family Residential 8,000 square-feet).”

The proposed project involves the development of up to 128 dwelling units on approximately 40.7 acres within the area designated “Resource Area” and the preservation of the remaining 68.5 acres (which overlap with the “Resource Area” and “Low Density Residential” designations) as open space and recreation uses. Accordingly, the applicant is proposing to change the “Resource Area” designation to a combination of “Low Density Residential,” and “Open Space,” and the “Low Density Residential” designation to “Open Space.”

The development of the Air Quality Management Plan (AQMP) is based in part on the land use general plan determinations of the various cities and counties that constitute the SoCAB. A project that is consistent with the general plan is considered to be accounted for in the AQMP. Since the proposed project entitlements would include a General Plan Amendment that would amend both the East Orange General Plan and Orange Park Acres Plan to incorporate the Trails at Santiago Creek Specific Plan, the proposed project would not be consistent with the growth assumptions within the current AQMP. The project would be potentially significant under Criteria 2.

**Criterion 3: Control Measures**

The proposed project would comply with all applicable rules and regulations of the AQMP. Because of the nature of the proposed project, which includes earthmoving activity, SCAQMD Rule 403 applies. Rule 403 governs emissions of fugitive dust during construction and operation activities. The rule requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Compliance with this rule is achieved through application of standard Best Management Practices (BMPs). These BMPs include application of water or chemical stabilizers to disturbed soils; covering haul vehicles; restricting vehicle speeds on unpaved roads to 15 miles per hour; sweeping loose dirt from paved site access roadways; cessation of construction activity when winds exceed 25 miles per hour; and establishing a permanent ground cover on finished sites. The project’s compliance with SCAQMD Rule 403 would
result in consistency with the applicable AQMP control measures. As such, emissions from fugitive dust during construction would be reduced to less than significant levels.

Therefore, the project would comply with the required control measures and therefore, the impact would be less than significant under Criteria 3.

As discussed in Impact AIR-2, the maximum daily construction emissions after the implementation of Mitigation Measures AIR-1a through AIR-1g would continue to exceed the SCAQMD’s regional significance thresholds. Because no additional feasible mitigation measures are available, the project’s regional operational emissions of NOx would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

Level of Significance Before Mitigation
Potentially significant impact.

Mitigation Measures

**MM AIR-1a**
During construction, all equipment shall be maintained in good operating condition so as to reduce emissions. The construction contractor shall ensure that all construction equipment is properly serviced and maintained in accordance with the manufacturer’s specifications. Maintenance records shall be available at the construction site for City verification.

**MM AIR-1b**
All paints and coatings shall meet or exceed performance standards noted in SCAQMD Rule 1113. To ensure compliance with SCAQMD Rule 1113, the following volatile organic compound (VOC) control measures shall be implemented during architectural coating activities:

a) Use paints with a VOC content of no more than 50 grams per liter for both interior and exterior coatings.

b) Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.

c) Use compliant low VOC cleaning solvents to clean paint application equipment.

d) Keep all paint and solvent laden rags in sealed containers to prevent VOC emissions.

**MM AIR-1c**
Prior to the issuance of grading permits for the project, the project applicant shall include a dust control plan as part of the construction contract standard specifications. The dust control plan shall include measures to meet the requirements of SCAQMD Rules 402 and 403. Such basic measures may include but are not limited to the following:

a) All haul trucks shall be covered prior to leaving the site to prevent dust from impacting the surrounding areas.

b) Moisten soil each day prior to commencing grading to depth of soil cut.
c) Water exposed surfaces at least three times a day under calm conditions, and as often as needed on windy days or during very dry weather in order to maintain a surface crust and minimize the release of visible emissions from the construction site.

d) Treat any area that will be exposed for extended periods with a soil conditioner to stabilize soil or temporarily plant with vegetation.

e) Use street sweepers that comply with SCAQMD Rules 1186 and 1186.1.

f) All contractors shall turn off all construction equipment and delivery vehicles when not in use, or limit on-site idling to no more than 5 minutes in any one hour.

g) On-site electrical hook ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators.

h) Traffic speeds on all unpaved roads to be reduced to 15 miles per hour or less.

i) Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads.

MM AIR-1d Prior to and during grading activities, the project applicant shall comply with South Coast Air Quality Management District Rule 403 as follows:

- The applicant shall submit a fully executed Large Operation Notification (Form 403 N) to the SCQAMD Executive Officer within 7 days of qualifying as a large operation. The form shall include the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site.
- Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request
- Install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities
- Identify a dust control supervisor that (1) is employed by or contracted with the property owner or developer; (2) is on the site or available on-site within 30 minutes during working hours; (3) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements; (4) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and (5) will notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation.

MM AIR-1e Prior to and during grading activities, the project applicant shall implement the following dust control measures for large operations, as applicable, pursuant to South Coast Air Quality Management District Rule 403:
Earth Moving (except construction cutting and filling areas, and mining operations)

1a. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; or

1a-1. For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.

Earth Moving—Construction Fill Areas

1b. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

Earth Moving—Construction Cut Areas and Mining Operations

1c. Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.

Disturbed Surface Areas—Completed Grading Areas

2a/b. Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.

2c. Apply chemical stabilizers within five working days of grading completion; OR

2d. Take actions (3a) or (3c) specified for inactive disturbed surface areas.

Inactive Disturbed Surface Areas

3a. Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; or
3b. Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; or
3c. Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
3d. Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Unpaved Roads

4a. Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8-hour work day]; or
4b. Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; or
4c. Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.

Open Storage Piles

5a. Apply chemical stabilizers; or
5b. Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; or
5c. Install temporary coverings; or
5d. Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.

All Categories

6a. Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in this mitigation measure may be used.

MM AIR-1f Prior to and during grading activities, the project applicant shall implement the following contingency control measures for large operations, as applicable, pursuant to South Coast Air Quality Management District Rule 403:

Earth Moving

1A. Cease all active operations; or
2A. Apply water to soil not more than 15 minutes prior to moving such soil.
0B. On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to
not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR
1B. Apply chemical stabilizers prior to wind event; or
2B. Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; or
3B. Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; or
4B. Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.

Unpaved Roads

1C. Apply chemical stabilizers prior to wind event; or
2C. Apply water twice per hour during active operation; or
3C. Stop all vehicular traffic.

Open Storage Piles

1D. Apply water twice per hour; or
2D. Install temporary coverings.

Paved Road Track Out

1E. Cover all haul vehicles; or
2E. Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.

All Categories

1F. Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in this mitigation measure may be used.

MM AIR-1g

During construction activities, all off-road equipment with engines greater than 50 horsepower shall meet either EPA or ARB Tier IV Final off-road emission standards. The construction contractor shall maintain records concerning its efforts to comply with this requirement, including equipment lists. Off-road equipment descriptions and information may include but are not limited to equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number.

If engines that comply with Tier IV Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier IV Interim) available. For purposes of this
mitigation measure, “commercially available” shall mean the availability of Tier IV Final engines taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. The contractor can maintain records for equipment that is not commercially available by providing letters from at least two rental companies for each piece of off-road equipment where the Tier IV Final engine is not available.

**Level of Significance After Mitigation**
Significant and unavoidable.

**Potential for Air Quality Standard Violation**

| Impact AIR-2: | The project may violate any air quality standard or contribute substantially to an existing or projected air quality violation. |

**Impact Analysis**

This section addresses regional criteria pollutant impacts. The non-attainment regional pollutants of concern are ozone, PM$_{10}$ and PM$_{2.5}$. Ozone is a regional pollutant formed by a photochemical reaction in the atmosphere and not directly emitted into the air. Ozone precursors, such as VOC and nitrogen oxides (NOX), react in the atmosphere in the presence of sunlight to form ozone. Therefore, the SCAQMD ozone threshold is based on the emissions of the ozone precursors VOC and NOX. This impact section includes analysis of, and significance determinations for, those pollutants. The concentration and operational emissions from the project were estimated using CalEEMod (Version 2016.3.2).

**Construction Emissions**

Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the heavy-duty off-road construction equipment, on-site motor vehicle operation, and fugitive dust (mainly PM$_{2.5}$ and PM$_{10}$) from disturbed soil. Off-site emissions are caused by motor vehicle exhaust from deliver and haul truck vehicles, work traffic, and road dust (mainly PM$_{2.5}$ and PM$_{10}$). The majority of this fugitive dust will remain localized and will be limited to the atmosphere around the project site. However, the potential for off-site impacts from fugitive dust exists unless control measures are implemented to reduce the particulate emissions from this source prior to leaving the project site.

Based on applicant-provided information, it was assumed that construction of the project would begin in January of 2019 and would last approximately four and one half years. A conceptual construction schedule is provided in Table 3.3-6. There are no existing buildings or hardscape on-site, therefore, the demolition phase would not be necessary. During grading, the project is expected to require the import of approximately 877,000 cubic yards of new material and the removal of approximately 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10 cubic yards per load. Based on this information, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period.
The emissions generated by construction equipment are based on the horsepower and load factors of the equipment. The inventory of construction equipment derived from the CalEEMod land use emission model for the land uses consistent with this project is shown as Table 3.3-7.

### Table 3.3-6: Conceptual Construction Schedule

<table>
<thead>
<tr>
<th>Phase Name</th>
<th>Start Date</th>
<th>End Date</th>
<th>Number of working days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Preparation/Grading</td>
<td>1/1/2020</td>
<td>6/30/2021</td>
<td>391</td>
</tr>
<tr>
<td>Paving</td>
<td>7/1/2021</td>
<td>9/1/2021</td>
<td>45</td>
</tr>
<tr>
<td>Building Construction</td>
<td>9/2/2021</td>
<td>6/30/2024</td>
<td>737</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>3/16/2024</td>
<td>6/30/2024</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: CalEEMod and FCS 2018, see Appendix F

### Table 3.3-7: Construction Equipment Assumptions

<table>
<thead>
<tr>
<th>Activity</th>
<th>Equipment</th>
<th>Amount</th>
<th>Hours per day</th>
<th>Default Horse-power</th>
<th>Default Load Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Preparation/Grading</td>
<td>Excavators</td>
<td>2</td>
<td>8</td>
<td>158</td>
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<tr>
<td></td>
<td>Graders</td>
<td>1</td>
<td>8</td>
<td>187</td>
<td>0.41</td>
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<tr>
<td></td>
<td>Rubber Tired Dozers</td>
<td>1</td>
<td>8</td>
<td>247</td>
<td>0.40</td>
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<tr>
<td></td>
<td>Scrapers</td>
<td>2</td>
<td>8</td>
<td>367</td>
<td>0.48</td>
</tr>
<tr>
<td></td>
<td>Tractors/Loaders/Backhoes</td>
<td>2</td>
<td>8</td>
<td>97</td>
<td>0.37</td>
</tr>
<tr>
<td>Building Construction</td>
<td>Cranes</td>
<td>1</td>
<td>7</td>
<td>231</td>
<td>0.29</td>
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<tr>
<td></td>
<td>Forklifts</td>
<td>3</td>
<td>8</td>
<td>89</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>Generator Sets</td>
<td>1</td>
<td>8</td>
<td>84</td>
<td>0.74</td>
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<tr>
<td></td>
<td>Tractors/Loaders/Backhoes</td>
<td>3</td>
<td>7</td>
<td>97</td>
<td>0.37</td>
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<tr>
<td></td>
<td>Welders</td>
<td>1</td>
<td>8</td>
<td>46</td>
<td>0.45</td>
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<tr>
<td>Paving</td>
<td>Pavers</td>
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<td>8</td>
<td>130</td>
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<tr>
<td></td>
<td>Paving Equipment</td>
<td>2</td>
<td>8</td>
<td>132</td>
<td>0.36</td>
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<td></td>
<td>Rollers</td>
<td>2</td>
<td>8</td>
<td>80</td>
<td>0.38</td>
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<tr>
<td>Architectural Coating</td>
<td>Air Compressors</td>
<td>1</td>
<td>6</td>
<td>78</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Source: CalEEMod and FCS 2018, see Appendix F

Table 3.3-8 presents the project construction emissions prior to the application of mitigation measures. The maximum daily emissions are compared with SCAQMD regional significance thresholds.
Table 3.3-8: Construction Maximum Daily Regional Emissions—Unmitigated

<table>
<thead>
<tr>
<th>Activity</th>
<th>VOC</th>
<th>NOₓ</th>
<th>CO</th>
<th>SOₓ</th>
<th>PM₁₀</th>
<th>PM₂.₅</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2020</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Preparation/Grading—2020</td>
<td>9.99</td>
<td>246.36</td>
<td>84.09</td>
<td>0.60</td>
<td>22.68</td>
<td>8.50</td>
</tr>
<tr>
<td><strong>2021</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Preparation/Grading—2021</td>
<td>9.47</td>
<td>227.62</td>
<td>83.08</td>
<td>0.60</td>
<td>36.75</td>
<td>11.78</td>
</tr>
<tr>
<td>Paving</td>
<td>1.32</td>
<td>12.96</td>
<td>15.07</td>
<td>0.02</td>
<td>0.85</td>
<td>0.67</td>
</tr>
<tr>
<td>Building Construction—2021</td>
<td>3.07</td>
<td>25.94</td>
<td>25.37</td>
<td>0.07</td>
<td>4.10</td>
<td>1.77</td>
</tr>
<tr>
<td><strong>2022</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Construction—2022</td>
<td>2.82</td>
<td>23.63</td>
<td>24.63</td>
<td>0.07</td>
<td>3.94</td>
<td>1.63</td>
</tr>
<tr>
<td><strong>2023</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Construction—2023</td>
<td>2.59</td>
<td>20.50</td>
<td>23.92</td>
<td>0.07</td>
<td>3.83</td>
<td>1.52</td>
</tr>
<tr>
<td><strong>2024</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Construction—2024</td>
<td>2.44</td>
<td>19.45</td>
<td>23.40</td>
<td>0.07</td>
<td>3.74</td>
<td>1.43</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>22.87</td>
<td>1.30</td>
<td>2.85</td>
<td>0.01</td>
<td>0.58</td>
<td>0.20</td>
</tr>
<tr>
<td>Building Construction and Architectural Coating Overlap</td>
<td>25.31</td>
<td>20.75</td>
<td>26.25</td>
<td>0.08</td>
<td>4.32</td>
<td>1.63</td>
</tr>
<tr>
<td><strong>Maximum Daily Emissions</strong></td>
<td><strong>25.31</strong></td>
<td><strong>246.36</strong></td>
<td><strong>84.09</strong></td>
<td><strong>0.60</strong></td>
<td><strong>36.75</strong></td>
<td><strong>11.78</strong></td>
</tr>
<tr>
<td>SCAQMD Air Quality Significance Thresholds</td>
<td>75</td>
<td>100</td>
<td>550</td>
<td>150</td>
<td>150</td>
<td>55</td>
</tr>
<tr>
<td>Exceed Threshold?</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
- VOC = Volatile Organic Compounds
- NOₓ = nitrogen oxides
- CO = carbon monoxide
- PM₁₀ = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
- PM₂.₅ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
- The PM₁₀ and PM₂.₅ emissions reflect the exhaust and “mitigated” fugitive dust emissions in accordance with SCAQMD Rule 403.
- Source of emissions: CalEEMod and FCS 2018, see Appendix F.

As shown in Table 3.3-8, the maximum daily construction emissions are below the recommended SCAQMD’s regional thresholds of significance, with the exception of NOₓ. The project is estimated to generate up to 246.36 pounds of NOₓ per day, which exceed the 100 pounds per day threshold of significance. Therefore, the project would result in a potentially significant impact prior to the application of mitigation. Consequently, mitigation measures are required.

Table 3.3-9 presents the project’s maximum daily construction emissions with implementation of mitigation measures AIR-1a through AIR-1g.
Table 3.3-9: Construction Maximum Daily Regional Emissions—Mitigated

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mass Daily Emissions (pounds per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VOC</td>
</tr>
<tr>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>Site Preparation/Grading—2020</td>
<td>6.30</td>
</tr>
<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td>Site Preparation/Grading—2021</td>
<td>6.04</td>
</tr>
<tr>
<td>Paving</td>
<td>0.34</td>
</tr>
<tr>
<td>Building Construction—2021</td>
<td>1.76</td>
</tr>
<tr>
<td>2022</td>
<td></td>
</tr>
<tr>
<td>Building Construction—2022</td>
<td>1.67</td>
</tr>
<tr>
<td>2023</td>
<td></td>
</tr>
<tr>
<td>Building Construction—2023</td>
<td>1.55</td>
</tr>
<tr>
<td>2024</td>
<td></td>
</tr>
<tr>
<td>Building Construction—2024</td>
<td>1.49</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>22.72</td>
</tr>
<tr>
<td>Building Construction and Architectural Coating Overlap</td>
<td>24.20</td>
</tr>
<tr>
<td><strong>Maximum Daily Emissions</strong></td>
<td>24.20</td>
</tr>
<tr>
<td><strong>SCAQMD Air Quality Significance Thresholds</strong></td>
<td>75</td>
</tr>
<tr>
<td><strong>Exceed Threshold?</strong></td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
NOX = nitrogen oxides VOC = Volatile Organic Compounds CO = carbon monoxide PM10 = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; PM2.5 = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers.
The PM10 and PM2.5 emissions reflect the exhaust and “mitigated” fugitive dust emissions in accordance with SCAQMD Rule 403.
Source: CalEEMod and FCS 2018, see Appendix F

As shown in Table 3.3-9, the project’s construction activities are estimated to generate a maximum 199.47 pounds of NOX per day with implementation of mitigation measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NOX even after implementation of Mitigation Measures AIR-1a through AIR-1g. As shown summarized in Table 3.3-9, the project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions estimates, contained in Appendix F, shows that 196.17 pounds of the 199.47 pounds of NOX are from off-site sources. As previously discussed, the project is anticipated to require up to 275,400 total haul trips during the grading period. Because the exceedance is largely a result of the anticipated haul trips, feasible and
enforceable mitigation measures to reduce the impact are limited. Based on the total haul trucks required each day and the fact that specific make and model of haul trucks can vary by contractor and within each contractor fleet, it would not be feasible to mandate the use of specific vehicles to haul soil for the proposed project. Because no additional feasible mitigation measures are available beyond those already quantified in Table 3.3-9, the project’s regional operational emissions of NO\textsubscript{X} would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

**Operational Emissions**

As previously discussed, the pollutants of concern include VOC, NO\textsubscript{X}, PM\textsubscript{10}, and PM\textsubscript{2.5}. Operational emissions are generated by area, energy, and mobile sources. Area sources would include activities such as landscape maintenance and occasional architectural coatings. Energy sources would include electricity and natural gas combustion for space and water heating. Mobile sources would include vehicle trips associated with passenger cars. The SCAQMD regional emission significance thresholds were used. The operational emissions were also modeled for summer and winter seasons. Table 3.3-10 shows the project’s maximum daily emissions prior to the application of mitigation.

<table>
<thead>
<tr>
<th>Category</th>
<th>Mass Daily Emissions (pounds per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VOC</td>
</tr>
<tr>
<td>Area</td>
<td>6.15</td>
</tr>
<tr>
<td>Energy</td>
<td>0.10</td>
</tr>
<tr>
<td>Mobile</td>
<td>0.80</td>
</tr>
<tr>
<td><strong>Total Emissions</strong></td>
<td>7.05</td>
</tr>
<tr>
<td>SCAQMD Significance Thresholds (lbs/day)</td>
<td>55</td>
</tr>
<tr>
<td><strong>Exceed Threshold?</strong></td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
- VOC = Volatile Organic Compounds
- NO\textsubscript{X} = nitrogen oxides
- CO = carbon monoxide
- PM\textsubscript{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
- PM\textsubscript{2.5} = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers

Source: CalEEMod and FCS 2018, see Appendix F—For each source, the maximum emissions between summer and winter are shown.

As shown in Table 3.3-10, the maximum daily operational emissions are below the thresholds of significance. Therefore, the project’s operational-related impacts are less than significant.

The project’s operational-related emissions would be below SCAQMD’s thresholds; however, the project’s construction-related emissions would continue to exceed SCAQMD’s applicable significance threshold for NO\textsubscript{X} with implementation of mitigation measures. Therefore, the project would violate an air quality standard or contribute substantially to an existing or projected air quality violation. Impacts would be significant and unavoidable.
Level of Significance Before Mitigation
Potentially significant impact.

Mitigation Measures
Implement Mitigation Measures AIR-1a through AIR-1g.

Level of Significance After Mitigation
Significant and unavoidable impact.

Cumulative Impacts

| Impact AIR-3: | The project may result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. |

Impact Analysis
The project’s regional operational emissions were determined to be below the SCAQMD’s project-level regional thresholds of significance; however, the project’s construction-related emissions would exceed the applicable SCAQMD significance threshold for NOₓ with implementation of all feasible mitigation measures. The thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. If an area is in non-attainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional thresholds for that non-attainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

As discussed above, the region is non-attainment for the federal and state ozone standards, the state PM₁₀ standards, and the federal and state PM₂.₅ standards. Therefore, a project that would not exceed the SCAQMD thresholds of significance on a project-level would also not result in a cumulatively considerable contribution to these regional air quality impacts. The impacts from the project would, therefore, be cumulatively less than significant during project operations and significant and unavoidable during project construction.

Level of Significance Before Mitigation
Potentially significant impact.

Mitigation Measures
Implement Mitigation Measures AIR-1a through AIR-1g.

Level of Significance After Mitigation
Significant and unavoidable impact.
Impacts on Sensitive Receptors

Impact AIR-4: The project may expose sensitive receptors substantial pollutant concentrations.

Impact Analysis

To result in a less than significant impact, the following criteria must be true:

- **Criterion 1:** LST assessment: emissions and air quality impacts during project construction or operation must be below the applicable LSTs.

- **Criterion 2:** A CO hot spot assessment must demonstrate that the project would not result in the development of a CO hot spot that would result in an exceedance of the CO ambient air quality standards.

- **Criterion 3:** The construction or operation of the project would not result in an exceedance of the health risk significance thresholds.

**Criterion 1: Localized Significance Threshold**

As mentioned in Section 3.3.3, the SCAQMD has recommended LSTs for project construction and operational emissions. The SCAQMD has prepared LST emission look-up tables that were developed for each SRA that can be used to determine whether a project may generate significant adverse localized air quality impacts. The SCAQMD has established LSTs for project construction and operation emissions for NO₂, CO, PM₁₀, and PM₂.₅. Project impacts for these pollutants are then compared against the applicable SCAQMD’s LSTs to determine the significance of the project impacts.

As noted in Section 3.3.3, the project is located within SRA 17 in central Orange County and the nearest sensitive receptors from the project site would be in the residential areas located within in 25 meters from the east edge of the project site.

**Construction**

The SCAQMD has published a “Fact Sheet for Applying CalEEMod to Localized Significance Thresholds” (SCAQMD 2011a). The CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. To compare CalEEMod reported emissions against the LST lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions;

2. The maximum number of acres disturbed on the peak day the equipment list summarized in Table 3.3-11;

---

### Table 3.3-11: Construction Equipment Summary

<table>
<thead>
<tr>
<th>Activity</th>
<th>Equipment</th>
<th>Acres disturbed/8 hour day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Preparation and Grading</td>
<td>Crawler Tractors</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Graders</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Rubber Tired Dozers</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Scrapers</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: CalEEMod User’s Guide.

3. Any emission control devices added onto off-road equipment; and

4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The LST emission look-up tables only apply to projects that their maximum daily disturbed area is less than or equal to 5 acres. Table 3.3-12 shows the project’s maximum daily disturbed acreage during construction.

### Table 3.3-12: Maximum Daily Disturbed Acreage

<table>
<thead>
<tr>
<th>Activity</th>
<th>Equipment</th>
<th>Number</th>
<th>Acres/8-hour day</th>
<th>Total Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Preparation/Grading</td>
<td>Crawler Tractors</td>
<td>2</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Graders</td>
<td>1</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Rubber Tired Dozers</td>
<td>1</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Scrapers</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Maximum Number of Acres Disturbed per Day** 4

Source: SCAQMD 2011.

As shown in Table 3.3-12, the maximum daily disturbed acreage is 4 acres, which is less than the maximum 4 acres per day limitation in using the LST emission lookup tables. The LST emission lookup tables contain LSTs for 1-, 2-, and 5-acre sites; therefore, the LSTs for a 2-acre site and a 5-acre were obtained. The LSTs used to determine significance for the construction portion of this criterion are for a 4-acre site, which was determined by linearly interpolating between the values for the 2- and 5-acre thresholds. Therefore, if the maximum daily on-site emissions generated per day during construction are below the 4-acre emission thresholds, the project’s localized air pollutant impacts would be less than significant. If on-site emissions exceed the LSTs, then the project would require a further air dispersion models for criteria pollutants.
Therefore, on-site emissions from construction activities were compared with the LSTs for a 4-acre site in SRA 17 at a distance of 25 meters to the nearest sensitive receptor. Table 3.3-13 shows the maximum daily on-site construction emissions.

Table 3.3-13: Construction Localized Significance Analysis—Unmitigated

<table>
<thead>
<tr>
<th>Activity</th>
<th>On-site Emissions (pounds per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO\textsubscript{X}</td>
</tr>
<tr>
<td>Site Preparation/Grading—2020</td>
<td>50.20</td>
</tr>
<tr>
<td>Site Preparation/Grading—2021</td>
<td>46.40</td>
</tr>
<tr>
<td>Paving</td>
<td>12.92</td>
</tr>
<tr>
<td>Building Construction—2021</td>
<td>17.43</td>
</tr>
<tr>
<td>Building Construction—2022</td>
<td>15.62</td>
</tr>
<tr>
<td>Building Construction—2023</td>
<td>14.38</td>
</tr>
<tr>
<td>Building Construction—2024</td>
<td>13.44</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>1.22</td>
</tr>
<tr>
<td>Building Construction and Architectural Coating Overlap</td>
<td>14.66</td>
</tr>
<tr>
<td>Maximum Daily On-Site Emissions</td>
<td>50.20</td>
</tr>
<tr>
<td>LST (4-acre site)</td>
<td>160</td>
</tr>
</tbody>
</table>

| Exceed Threshold? | No | No | No | No |

Notes:
- NO\textsubscript{X} = nitrogen oxides; VOC = volatile organic compounds; CO = carbon monoxide
- PM\textsubscript{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
- PM\textsubscript{2.5} = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
- The PM\textsubscript{10} and PM\textsubscript{2.5} emissions reflect the exhaust and “mitigated” fugitive dust emissions in accordance with SCAQMD Rule 403.
- Source of emissions: CalEEMod and FCS 2018, see Appendix F
- Source of thresholds: SCAQMD 2009, for SRA 17, 25 meters for 5-acre and 2-acre sites.

As shown in Table, unmitigated on-site emissions during construction would not exceed the LSTs. If the project results in emissions that do not exceed the LSTs, it follows that those emissions would not cause or contribute to a local exceedance of appropriate ambient air quality standard. Therefore, the project would not expose receptors to substantial criteria pollutant concentrations from construction activities prior to the implementation of mitigation.

For informational purposes, construction emissions with the application of Mitigation Measures AIR-1a through AIR-1g are shown below in Table 3.3-14.
Table 3.3-14: Construction Localized Significance Analysis—Mitigated

<table>
<thead>
<tr>
<th>Activity</th>
<th>NO\textsubscript{X}</th>
<th>CO</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Preparation/Grading—2020</td>
<td>3.30</td>
<td>33.00</td>
<td>2.90</td>
<td>1.45</td>
</tr>
<tr>
<td>Site Preparation/Grading—2021</td>
<td>3.30</td>
<td>33.00</td>
<td>2.90</td>
<td>1.45</td>
</tr>
<tr>
<td>Paving</td>
<td>1.22</td>
<td>17.30</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Building Construction—2021</td>
<td>2.74</td>
<td>17.68</td>
<td>0.11</td>
<td>0.11</td>
</tr>
<tr>
<td>Building Construction—2022</td>
<td>2.69</td>
<td>17.66</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Building Construction—2023</td>
<td>2.65</td>
<td>17.64</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Building Construction—2024</td>
<td>2.61</td>
<td>17.63</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>0.13</td>
<td>1.83</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Building Construction and Architectural Coating Overlap</td>
<td>2.74</td>
<td>19.46</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Maximum Daily On-Site Emissions</strong></td>
<td>3.30</td>
<td>33.00</td>
<td>2.90</td>
<td>1.45</td>
</tr>
<tr>
<td>LST (2-acre site)</td>
<td>115</td>
<td>715</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>LST (5-acre site)</td>
<td>183</td>
<td>1,253</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>LST (4-acre site)</td>
<td>160</td>
<td>1,074</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td><strong>Exceed Threshold?</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
- NO\textsubscript{X} = nitrogen oxides; VOC = volatile organic compounds; CO = carbon monoxide
- PM\textsubscript{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
- PM\textsubscript{2.5} = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
- The PM\textsubscript{10} and PM\textsubscript{2.5} emissions reflect the exhaust and “mitigated” fugitive dust emissions in accordance with SCAQMD Rule 403.
- Source of emissions: CalEEMod and FCS 2018, see Appendix F
- Source of thresholds: SCAQMD 2009, for SRA 17, 25 meters for 5-acre and 2-acre sites.

As shown in Table 3.3-14, mitigated construction emissions would remain less than significant.

**Operations**

The project consists of the development of a maximum of 128 single family houses (25 to 50 acres) and the preservation of the remaining acreage as open space. The operational-related on-site emissions would include activities such as landscape maintenance, occasional architectural coatings, and electricity and natural gas usage for space and water heating. Since the majority of project-generated emissions would come from residential use, the project is not expected to generate relatively large amounts of pollutant emissions. In addition, the on-site emissions during operation are compared to the LSTs and summarized in Table 3.3-15. Because the project site is larger than the largest size available on the emission lookup tables (5 acres), the project’s on-site operational emissions are compared with the LSTs for a 5-acre site in SRA 17 at a distance of 25 meters.
### Table 3.3-15: Operational Localized Significance Analysis—Unmitigated

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Maximum On-site Emissions (Pounds per Day)</th>
<th>NOx</th>
<th>CO</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td></td>
<td>0.12</td>
<td>10.66</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>Energy</td>
<td></td>
<td>0.84</td>
<td>0.36</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Mobile (^1)</td>
<td></td>
<td>1.40</td>
<td>2.43</td>
<td>0.21</td>
<td>0.06</td>
</tr>
<tr>
<td>Total On-site Emissions</td>
<td></td>
<td>2.37</td>
<td>13.45</td>
<td>0.34</td>
<td>0.19</td>
</tr>
<tr>
<td>Localized Significance Threshold</td>
<td></td>
<td>183</td>
<td>1,253</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Exceeds Significance Threshold?</td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
- NOx = nitrogen oxides
- VOC = Volatile Organic Compounds
- CO = carbon monoxide
- PM10 = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
- PM2.5 = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers

\(^1\) All trips used a trip length of 0.5 mile and all trips were considered primary to estimate on-site mobile emissions.

Source of emissions: CalEEMod and FCS 2018, see Appendix F

Source of thresholds: SCAQMD 2009, for SRA 17, 25 meters, 5-acre site.

As shown in Table 3.3-15, on-site project operational-related emissions would not exceed the operational LSTs. Therefore, the project would not expose receptors to substantial criteria pollutant concentration from operational-related activities.

**Criterion 2: Carbon Monoxide Hot Spot Analysis**

An adverse CO concentration, known as a “hot spot,” would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the SCAQMD 1993 Handbook, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SoCAB is now designated as attainment.

To establish a more accurate record of baseline CO concentrations affecting the SoCAB, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods.

The analysis prepared for CO attainment in the SoCAB by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the SoCAB. CO attainment was thoroughly analyzed as part of the SCAQMD’s 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak
carbon monoxide concentrations in the SoCAB are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region’s unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the LOS in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be Level E at peak morning traffic and Level F at peak afternoon traffic.

The Traffic Impact Analysis prepared by Linscott, Law & Greenspan, Engineers identified peak-hour traffic volumes for nine intersections affected by the project. The report provided scenarios for current year, year 2022 (operations start year) and year 2040.

As identified in the Traffic Impact Analysis, the maximum peak-hour intersection volume for year 2022 would occur at the East Chapman Avenue/Santiago Canyon Road/Jamboree Road intersection in the Cumulative Plus Project Scenario during the PM peak hour. The estimated cumulative traffic volume at this intersection is 5,663 PM peak-hour trips.

In addition, the maximum peak-hour intersection volume for year 2040 would occur at the E Santiago Canyon Road/N Cannon Street in the cumulative plus project scenario during PM peak hour. The estimated cumulative traffic volume at this intersection would be 7,496 PM peak-hour trips. All of the estimated intersection traffic volumes are substantially lower than the intersection volumes analyzed in the 1992 CO Plan. Consequently, at buildout of the project, according to the project Traffic Impact Analysis, none of the intersections in the vicinity of the project would have peak hourly traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to SoCAB meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail. As a result, the SoCAB has been designated as attainment for CO since 2007 and even very busy intersections do not result in exceedances of the CO standard. Therefore, the operation of the project would not be expected to generate a CO hot spot that would exceed the CO ambient air quality standards.

**Criterion 3: Construction Toxic Air Pollutants**

**Project-Specific Impacts during Construction and Operation**

DPM has been identified by the ARB as a carcinogenic substance. Major sources of DPM include off-road construction equipment and heavy-duty delivery truck activities. For purposes of this analysis, DPM is represented as exhaust emissions of PM$_{10}$.

The results of the HRA prepared for the project construction, for cancer risk, and long-term chronic cancer risk are summarized below. Air dispersion modeling was utilized to assess the project’s
potential health risks using the current version of AERMOD (Version 9.6.1) air dispersion model, which is the air dispersion model accepted by the EPA and the SCAQMD for preparing HRAs. Exhaust emissions of DPM were estimated using CalEEMod (Version 2016.3.2). Table 3.3-16 summarizes the emission rates of unmitigated PM$_{10}$ and PM$_{10}$ with Tier IV Final mitigation.

### Table 3.3-16: Project PM$_{10}$ Construction Emissions—Unmitigated and Tier IV Final Mitigation

<table>
<thead>
<tr>
<th>Year</th>
<th>On-site DPM (grams/m$^2$/sec)</th>
<th>off-site DPM-WEST (grams/sec)</th>
<th>Off-site DPM-EAST (grams/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Construction Emissions (Unmitigated)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>1.52E-07</td>
<td>1.16E-04</td>
<td>1.91E-04</td>
</tr>
<tr>
<td>2021</td>
<td>9.86E-08</td>
<td>1.17E-04</td>
<td>1.84E-04</td>
</tr>
<tr>
<td>2022</td>
<td>5.60E-08</td>
<td>2.56E-05</td>
<td>4.21E-05</td>
</tr>
<tr>
<td>2023</td>
<td>4.85E-08</td>
<td>1.75E-05</td>
<td>2.91E-05</td>
</tr>
<tr>
<td>2024</td>
<td>4.49E-08</td>
<td>1.86E-05</td>
<td>3.07E-05</td>
</tr>
<tr>
<td>Annual Construction Emissions (Tier IV Final Mitigation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>7.08E-09</td>
<td>1.16E-04</td>
<td>1.91E-04</td>
</tr>
<tr>
<td>2021</td>
<td>6.53E-09</td>
<td>1.17E-04</td>
<td>1.84E-04</td>
</tr>
<tr>
<td>2022</td>
<td>7.03E-09</td>
<td>2.56E-05</td>
<td>4.21E-05</td>
</tr>
<tr>
<td>2023</td>
<td>6.44E-09</td>
<td>1.75E-05</td>
<td>2.91E-05</td>
</tr>
<tr>
<td>2024</td>
<td>6.07E-09</td>
<td>1.86E-05</td>
<td>3.07E-05</td>
</tr>
</tbody>
</table>

Source: CalEEMod and FCS 2018, see Appendix F.

The estimated health and hazard impacts at the maximum impacted sensitive receptor from the project’s construction emissions are provided in Table 3.3-17.

### Table 3.3-17: Estimated Health Risks and Hazards: Project Construction—Unmitigated

<table>
<thead>
<tr>
<th>Source</th>
<th>Cancer Risk (risk per million)</th>
<th>Chronic Non-Cancer Hazard Index$^{(2)}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Infants$^{(1)}$</td>
<td>18.6</td>
<td>0.01</td>
</tr>
<tr>
<td>Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Child$^{(1)}$</td>
<td>4.1</td>
<td>0.01</td>
</tr>
<tr>
<td>Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Adult$^{(1)}$</td>
<td>0.4</td>
<td>0.01</td>
</tr>
<tr>
<td>Significance Threshold</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Exceeds Individual Source Threshold?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Table 3.3-17 (cont.): Estimated Health Risks and Hazards: Project Construction—Unmitigated

<table>
<thead>
<tr>
<th>Source</th>
<th>Cancer Risk (risk per million)</th>
<th>Chronic Non-Cancer Hazard Index&lt;sup&gt;(2)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Maximum impacted sensitive receptor is a residence located approximately 25 meters east of the Project along the River Birch Circle near Sycamore Glen Drive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Chronic non-cancer hazard index was estimated by dividing the maximum annual DPM concentration (as PM&lt;sub&gt;10&lt;/sub&gt; exhaust) by the REL of 5 μg/m&lt;sup&gt;3&lt;/sup&gt;.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: AERMOD and FCS 2018, see Appendix F.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The sensitive receptor that has the highest cancer risks is located within 25 meters (82 feet) from the east edge of the project site, at the corner of River Birch Circle near Sycamore Glen Drive. As noted in Table 3.3-17, the project’s construction DPM emissions would not exceed the non-cancer HI significance threshold; however, the project’s construction DPM emissions would exceed the cancer risk significance threshold prior to the application of mitigation. Therefore, the project is required to implement Tier IV Final mitigation, as shown in Table 3.3-18.

Table 3.3-18: Estimated Health Risks and Hazards: Project Construction-with Tier IV Final Mitigation

<table>
<thead>
<tr>
<th>Source</th>
<th>Cancer Risk (risk per million)</th>
<th>Chronic Non-Cancer Hazard Index&lt;sup&gt;(2)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Infants&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>1.2</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Child&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>0.4</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Adult&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>&lt;0.1</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Significance Threshold</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Exceeds Individual Source Threshold?</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:
* (1) Maximum impacted sensitive receptor is a residence located approximately 25 meters east of the Project along the River Birch Circle near Sycamore Glen Drive.
* (2) Chronic non-cancer hazard index was estimated by dividing the maximum annual DPM concentration (as PM<sub>10</sub> exhaust) by the REL of 5 μg/m<sup>3</sup>.
* Source: AERMOD and FCS 2018, see Appendix F.

As noted in Table 3.3-17, the project’s construction DPM emissions would not exceed the cancer risk and non-cancer HI significance thresholds with Tier IV Final mitigation. Therefore, the project would not result in a significant impact on nearby sensitive receptors during construction, after the implementation of Mitigation Measures AIR-1a through AIR-1g.
As previously mentioned, the residential nature of the project would not result in the emissions of TACs during project operation. Therefore, the operation of the project would not result in a significant health risk during operations.

**Cumulative HRA Impacts during Construction and Operation**

As presented in Section 3.3.3 above, projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. As discussed in criteria 1 through 3, the project would not expose sensitive receptors to substantial pollutant concentrations after the implementation of Mitigation Measure AIR-1a through AIR-1g. Since this project does not exceed the project-specific thresholds after mitigation, it would not be considered to result in cumulatively significant impacts.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

Implement Mitigation Measures AIR-1a through AIR-1g.

**Level of Significance After Mitigation**

Less than significant impact.

**Objectionable Odors**

| Impact AIR-5: | The project would not create objectionable odors affecting a substantial number of people. |

**Impact Analysis**

Odors can cause a variety of responses. The impact of an odor often results from interacting factors such as frequency (how often), intensity (strength), duration (time), offensiveness (unpleasantness), location, and sensory perception.

Odor is typically a warning system that prevents animals and humans from consuming spoiled food or toxic materials. Odor-related symptoms reported in a number of studies include nervousness, headache, sleeplessness, fatigue, dizziness, nausea, loss of appetite, stomachache, sinus congestion, eye irritation, nose irritation, runny nose, sore throat, sough and asthma exacerbation (SCAQMD 2007).

The SCAQMD’s role is to protect the public’s health from air pollution by overseeing and enforcing regulations (SCAQMD 2007). The SCAQMD’s resolution activity for odor compliance is mandated under California Health & Safety Code Section 41700, and falls under SCAQMD Rule 402. The Public Nuisance Regulation states: “A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not
apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable beyond the project’s site boundaries. The potential for diesel odor impacts associated with construction activities at the project site is therefore less than significant. Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations and these types of land uses are not located in the project’s vicinity. The project does not contain land uses typically associated with emitting objectionable odors.

During operation of the project, odors would primarily consist of vehicles traveling to the urban linear park and additionally from the use of equipment during landscaping and facility maintenance. These occurrences would not produce a significant amount of odors; therefore, operational impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
3.4 - Biological Resources

3.4.1 - Introduction

This section describes the existing biological setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Biological Resources Assessment prepared by ESA, the Jurisdictional Delineation prepared by PCR, and the Tree Survey prepared by PCR. The reports are provided in Appendix G.

3.4.2 - Environmental Setting

Natural Communities and Habitats

The project site contains 28 natural communities and habitats, which are summarized in Table 3.4-1. The locations of the natural communities and habitats are provided in Exhibit 3.4-1.

<table>
<thead>
<tr>
<th>Natural Community</th>
<th>Acres Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Cottonwood—Willow Riparian Forest</td>
<td>12.79</td>
</tr>
<tr>
<td>Coastal Sage Scrub</td>
<td>0.57</td>
</tr>
<tr>
<td>Coastal Sage Scrub/Non-Native Herbaceous Cover</td>
<td>0.19</td>
</tr>
<tr>
<td>Coast Live Oak Woodland</td>
<td>0.33</td>
</tr>
<tr>
<td>Blue Elderberry Scrub</td>
<td>0.13</td>
</tr>
<tr>
<td>California Brittlebush Scrub</td>
<td>0.26</td>
</tr>
<tr>
<td>Laurel Sumac Scrub</td>
<td>0.38</td>
</tr>
<tr>
<td>Yerba Santa Scrub</td>
<td>0.31</td>
</tr>
<tr>
<td>Mule Fat Scrub</td>
<td>0.17</td>
</tr>
<tr>
<td>Open Water</td>
<td>0.66</td>
</tr>
<tr>
<td>Giant Reed</td>
<td>0.44</td>
</tr>
<tr>
<td>Ornamental</td>
<td>0.49</td>
</tr>
<tr>
<td>Eucalyptus Woodland</td>
<td>0.43</td>
</tr>
<tr>
<td>Non-Native Grassland/Non-Native Herbaceous Cover</td>
<td>25.47</td>
</tr>
<tr>
<td>Non-Native Grassland/Disturbed</td>
<td>3.89</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover</td>
<td>5.11</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Black Willow Scrub</td>
<td>0.20</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Coastal Sage Scrub</td>
<td>0.43</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Mule Fat Scrub</td>
<td>0.26</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Ornamental</td>
<td>7.05</td>
</tr>
</tbody>
</table>
Table 3.4-1 (cont.): Natural Community Summary

<table>
<thead>
<tr>
<th>Natural Community</th>
<th>Acres Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Native Herbaceous Cover/Disturbed</td>
<td>0.19</td>
</tr>
<tr>
<td>Disturbed</td>
<td>19.46</td>
</tr>
<tr>
<td>Disturbed/Arroyo Willow Scrub</td>
<td>0.11</td>
</tr>
<tr>
<td>Disturbed/Black Willow Scrub</td>
<td>0.31</td>
</tr>
<tr>
<td>Disturbed/Coastal Sage Scrub</td>
<td>0.30</td>
</tr>
<tr>
<td>Disturbed/Mule Fat Scrub</td>
<td>0.03</td>
</tr>
<tr>
<td>Disturbed/Non-Native Herbaceous Cover</td>
<td>26.22</td>
</tr>
<tr>
<td>Developed</td>
<td>3.57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>109.75</strong></td>
</tr>
</tbody>
</table>


**Southern Cottonwood-Willow Riparian Forest**

Southern cottonwood-willow riparian forest is dominated by Fremont’s cottonwood (Populus fremontii), black cottonwood (Populus trichocarpa), black willow (Salix gooddingii), red willow (Salix laevigata), arroyo willow (Salix lasiolepis), and mule fat (Baccharis salicifolia). Other species found within this community include coast live oak (Quercus agrifolia), poison oak (Toxicodendron diversilobum), cattail (Typha sp.), Southern California grape (Vitis girdiana), cocklebur (Xanthium strumarium), California sagebrush (Artemisia californica), red willow (Salix laevigata), arroyo willow (Salix lasiolepis), and mule fat (Baccharis salicifolia). Other species found within this community include coast live oak (Quercus agrifolia), poison oak (Toxicodendron diversilobum), cattail (Typha sp.), Southern California grape (Vitis girdiana), cocklebur (Xanthium strumarium), California sagebrush (Artemisia californica), western sycamore (Platanus racemosa), coast live oak (Quercus agrifolia), poison oak (Toxicodendron diversilobum), cattail (Typha sp.), Southern California grape (Vitis girdiana), cocklebur (Xanthium strumarium), California sagebrush (Artemisia californica), western sycamore (Platanus racemosa), blue elderberry (Sambucus nigra ssp. caerulea), phacelia (Phacelia sp.), watercress (Nasturtium officinale), rush (Juncus sp.), spike rush (Eleocharis sp.), mugwort (Artemisia douglasiana), California blackberry (Rubus ursinus), giant reed (Arundo donax), and giant wild rye (Leymus condensatus). In addition, several non-native invasive species were observed, including Mexican fan palm (Washingtonia robusta), date palm (Phoenix canariensis), Peruvian peppertree (Schinus molle), castor bean (Ricinus communis), tree tobacco (Nicotiana glauca), white cudweed (Pseudognaphalium luteo-album), and black mustard (Brassica nigra). Southern cottonwood-willow riparian forest is found throughout the northern portion of the project site within Santiago Creek.

**Coastal Sage Scrub**

Coastal sage scrub, which is covered under the County of Orange (Central/Coastal) Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), is dominated by California sagebrush and California bush sunflower (Encelia californica). Other species within this community include coastal prickly pear (Opuntia littoralis), California buckwheat (Eriogonum fasciculatum), felt-leaved yerba santa (Eriodictyon crassifolium), deerweed (Acmispon glaber), Wright’s cudweed (Pseudognaphalium luteo-album), and black mustard (Brassica nigra). Coastal sage scrub is found throughout the northern portion of the project site.
Exhibit 3.4-1
Natural Communities

Coastal Sage Scrub/Non-Native Herbaceous Cover
This community consists of coastal sage scrub dominated by California sagebrush, but has a large component of weedy non-native herbaceous species, such as black mustard. Coastal sage scrub/non-native herbaceous cover is found along the northwestern portion of the project site.

Coast Live Oak Woodland
Coast live oak woodland is dominated by coast live oak with an understory of poison oak. Associated species found within this community include gum tree, blue elderberry, toyon, vinca (*Vinca major*), poison oak, wild grape, and English ivy. Coast live oak woodland occurs in patches throughout the southeastern portion of the project site.

Blue Elderberry Scrub
Blue elderberry scrub is dominated by patches of blue elderberry intermixed with patches of laurel sumac (*Malosma laurina*), some dead trees, and non-native herbaceous cover. This community occurs within the northern portion of the project site.

California Brittlebush Scrub
California brittlebush scrub consists of a nearly monotypic community of California brittlebush that is spaced out adjacent to the northern boundary of the project site along Mabury Avenue.

Laurel Sumac Scrub
Laurel sumac scrub is dominated by patches of laurel sumac intermixed non-native herbaceous cover along the northern slopes of the project site.

Yerba Santa Scrub
Yerba santa scrub is dominated by felt-leaved yerba santa within a nearly monotypic community. Associated species observed include California sagebrush, wild cucumber (*Marah macrocarpa*), scalebroom (*Lepidospartum squamatum*), coastal prickly pear, and black mustard. Yerba santa scrub occurs within the northwestern portion of the project site.

Mule Fat Scrub
Mule fat scrub is dominated by patches of mule fat. This community was found adjacent to Santiago Creek in the northern portion of the project site, and patches of mule fat were found adjacent to a ponded area in the southwestern portion of the project site. Associated species observed include Southern California black walnut in the patch near Santiago Creek, and arroyo willow and non-native gum tree and Mexican fan palm near the ponded area.

Open Water
Open water was mapped in two ponded areas in the southwestern corner of the project site. Although ponded open water has not been observed here in previous years, due to the heavy rainfall during the 2016–2017 rainy season, ponding was observed during the vegetation mapping update.

Giant Reed
Large dense stands of giant reed dominate this community within Santiago Creek.
Ornamental landscaping consists of introduced trees and shrubs associated with development. Ornamental areas within the project site are dominated by non-native trees, including gum tree, pine (Pinus sp.), Mexican fan palm, and Peruvian peppertree, among other ornamental tree species. Ornamental landscaping occurs in patches throughout the southeastern portion of the project site.

**Eucalyptus Woodland**
Areas mapped as eucalyptus woodland consisted of windrows of planted gum trees of various species. Eucalyptus woodland was found within the southeastern portion of the project site.

**Non-Native Grassland/Non-Native Herbaceous Cover**
Non-native grassland/non-native herbaceous cover is dominated by non-native annual grasses, such as barley (Hordeum sp.), ripgut brome (Bromus diandrus), red brome (Bromus madritensis), peregrine saltbush (Atriplex suberecta), and intermixed with non-native herbaceous species such as black mustard. This community is found within large fields in the northern and western portions of the project site.

**Non-Native Grassland/Disturbed**
Non-native grassland/disturbed is dominated by non-native annual grasses and open, disturbed areas that support little or no vegetation. Non-native grassland/disturbed is found within the western portion of the project site.

**Non-Native Herbaceous Cover**
A non-native herbaceous cover area observed within the eastern portion of the project site is dominated by non-native, weedy species such as short-podded mustard (Hirschfeldia incana) and tocalote (Centaurea melitensis).

**Non-Native Herbaceous Cover/Black Willow Scrub**
Within the eastern portion of the project site, there is an open field exhibiting evidence of discing. Although most of this area is dominated by non-native herbaceous cover, weedy species, an isolated patch of a few black willow trees were planted along the southern edge of the field and comprise a small community of non-native herbaceous cover/black willow scrub. This community comprises less than ten individual black willow trees with an understory dominated by non-native herbaceous cover species.

**Non-Native Herbaceous Cover/Coastal Sage Scrub**
Non-native herbaceous cover/coastal sage scrub is dominated by weedy, non-native herbaceous species but exhibit sparse, remnant species of coastal sage scrub, including California sagebrush. Non-native herbaceous cover/coastal sage scrub is found within the northwestern portion of the project site.

**Non-Native Herbaceous Cover/Mule Fat Scrub**
Non-native herbaceous cover/mule fat scrub is dominated by weedy, non-native herbaceous species but contains patches of sparse mule fat. Non-native herbaceous cover/mule fat scrub is found within the western portion of the project site.
Non-Native Herbaceous Cover/Ornamental
Non-native herbaceous cover/ornamental is dominated by weedy, non-native herbaceous species such as black mustard, short-podded mustard, tree tobacco, Russian thistle (Salsola tragus), and castor bean, intermixed with large ornamental tree species such as gum tree, Mexican fan palm, date palm, Peruvian pepper tree, Brazilian pepper (Schinus terebinthifolius), and tree of heaven (Ailanthus altissima). A number of native Southern California black walnuts are also found within this community. Non-native herbaceous cover/ornamental is found north of Santiago Creek along the northern boundary of the project site.

Non-Native Herbaceous Cover/Disturbed
Non-native herbaceous cover/disturbed is dominated by weedy, non-native herbaceous species interspersed with disturbed areas that contain little or no vegetation. Non-native herbaceous cover/disturbed is found in the central portion of the project site.

Disturbed
Disturbed or barren areas either completely lack vegetation or contain only very sparse nonnative herbaceous cover. Disturbed areas within the project site consist of paved roads, dirt roads which were compacted by vehicular use, areas which were previously disced or disturbed, or stockpiles of recycling materials. Disturbed areas occur in the southeastern portions of the project site.

Disturbed/Arroyo Willow Scrub
This community comprises disturbed areas due to the existing activities on-site and these deep trenches were excavated. Since water sometimes collects within these trenches, some sparse vegetation has begun to grow and contain disturbed areas with arroyo willows. This community occurs in the central-western portion of the project site.

Disturbed/Black Willow Scrub
This community comprises disturbed areas due to the existing activities on-site and these deep trenches were excavated. Since water sometimes collects within these trenches, some sparse vegetation has begun to grow and contain disturbed areas with black willows. This community occurs in the central-western portion of the project site.

Disturbed/Coastal Sage Scrub
Disturbed/coastal sage scrub is dominated by non-native herbaceous cover, weedy species but exhibit components of a coastal sage scrub community, including California sagebrush and deerweed. Disturbed/coastal sage scrub is found within the northern central portion of the project site.

Disturbed/Mule Fat Scrub
A small, isolated patch of disturbed/mule fat scrub is located within the southern portion of the project site near the parking area. This community consists of sparse mule fat plants within an otherwise disturbed area.
**Disturbed/Non-Native Herbaceous Cover**

Disturbed/non-native herbaceous cover areas within the project site have various levels of previous disturbance and range from sparsely vegetated or bare areas to disturbed areas vegetated with non-native herbaceous cover species. Species observed within this community include horehound (*Marrubium vulgare*), short-podded mustard, black mustard, tree tobacco, tocalote, red-stemmed filaree (*Erodium cicutarium*), mule fat, broom baccharis (*Baccharis sarothroides*), slenderleaf iceplant (*Mesembryanthemum nodiflorum*), scarlet pimpernel (*Anagallis arvensis*), Russian thistle, fennel (*Foeniculum vulgare*), giant reed, laurel sumac, peregrine saltbush, and Mexican fan palm.

Disturbed/non-native herbaceous cover areas were found within the central and southwestern portion of the project site.

**Developed**

The developed area consists of a paved parking area or roadways along the southern boundary of the project site adjacent to East Santiago Canyon Road.

**Sensitive Natural Communities**

Because of its ability to support “Target Species” and “Identified Species,” coastal sage scrub is a community that is covered under the NCCP/HCP. The project site includes 0.57 acre of coastal sage scrub and 0.19 acre of coastal sage scrub/non-native herbaceous cover. In addition, the project site supports four sensitive communities that are considered high priority for conservation by the CDFW’s List of California Terrestrial Natural Communities, including southern cottonwood-willow riparian forest (12.79 acres), blue elderberry scrub (0.13 acre), California brittlebush scrub (0.26 acre), and yerba santa scrub (0.31 acre) (refer to Exhibit 3.4-2).

**Special-status Plant Species**

**Plant Species that Occur or with Potential to Occur**

Sensitive plants include those listed, or candidates for listing, by the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), and species considered sensitive by the California Native Plant Society (CNPS) (particularly Ranks 1A, 1B, 2A and 2B). Many of the sensitive species addressed are also “Identified Species” under the NCCP/HCP and are considered covered species. Several sensitive plant species were reported in the California Natural Diversity Database (CNDDB) from the vicinity.

Focused sensitive plant surveys were conducted within suitable habitat on the project site in May and August of 2010, 2012, 2013, 2014; June and August of 2015; and May of 2017 for the following species: Coulter’s matilija poppy, foothill mariposa lily, chaparral sand verbena, Braunton’s milkvetch, Coulter’s saltbush, South Coast saltscale, thread-leaved brodiaea, Plummer’s mariposa lily, southern tarplant, long-spined spineflower, many-stemmed dudleya, Los Angeles sunflower, Coulter’s goldfields, mud nama, Southern California black walnut, Gambel’s water cress, Peninsular nolina, Allen’s pentachaeta, white rabbit-tobacco, chaparral ragwort, and San Bernardino aster. Only two of these sensitive plant species, Southern California black walnut and southern tarplant, were observed within the project site during focused surveys, including the most recent surveys in May 2017, and are described below.
Southern California Black Walnut
Southern California black walnut is a CNPS List 4.2 species (“Watch List” plants of limited distribution; fairly endangered in California [20 to 80 percent occurrences threatened]). Based on the 2017 survey, a total of 71 Southern California black walnuts occur within the southern cottonwood-willow riparian forest and non-native herbaceous cover communities within the northwestern portion of the project site; refer to Exhibit 3.4-3.

Southern Tarplant
Southern tarplant is a CNPS List 1B.1 species [Plants Rare, Threatened, or Endangered in California and elsewhere; seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)]. Approximately 48,417 southern tarplant individuals were observed within disturbed habitat within the central portion of the project site and disturbed habitat within the southern portion of the project site during the focused sensitive plant surveys conducted in 2010; refer to Exhibit 3.4-3.

As part of the existing backfilling and material recycling operations, the project Applicant salvaged the southern tarplant seed in 2010, 2013, and 2015. The southern tarplant seed was processed and stored at RSABG. A portion of the southern tarplant seed was donated to RSABG’s permanent conservation collection, and in 2015, a portion of the remaining seed was donated to Newport Banning Land Trust for restoration. The remainder of the salvaged southern tarplant seed will be relocated and sown on-and/or off-site within the open space areas to be avoided and preserved. A special-status plant survey was conducted on May 19, 2017 and fewer than 100 southern tarplants were observed on-site.

Plant Species Not Expected to Occur
The following plant species have been documented to occur within the region but are not expected to occur, due to lack of suitable habitat or because the project site is outside of the known range or elevation for these species: Tecate cypress (Cupressus forbesii), Malibu baccharis (Baccharis malibuensis), aphanisma (Aphanisma blitoides), big-leaved crownbeard (Verbesina dissita), Parish’s brittlebush (Atriplex parishii), Davidson’s saltscale (Atriplex seriana var. davidsonii), estuary seablite (Suaeda esteroa), Santa Monica Mountains dudleya (Dudleya cymosa ssp. ovatifolia), Laguna Beach dudleya (Dudleya stolonifera), Jokerst’s monardella (Monardella australis ssp. jokerstii), intermediate monardella (Monardella hypoleuca ssp. intermedia), California Orcutt grass (Orcuttia californica), California beardtongue (Penstemon californicus), Nuttall’s scrub oak (Quercus dumosa), heart-leaved pitcher sage (Lepechinia cardiophylla), salt spring checkerbloom (Abronia villosa var. aurita), Santa Ana River woollystar (Eriastrum densifolium ssp. sanctorum), prostrate vernal pool navarretia (Navarretia prostrata), San Fernando Valley spineflower (Chorizanthe parryi var. fernandina), coast woolly-heads (Nemacaulis denudata var. denudata), small-flowered mountain mahogany (Cercocarpus minutiflorus), salt marsh bird’s-beak (Cordylanthus maritimus ssp. maritimus), and Catalina mariposa lily (Calochortus catalinae).

Wildlife Species
Special-status wildlife include those species listed as Endangered or Threatened under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA), candidates for listing by the USFWS or CDFW, and species of special concern to the CDFW. A number of sensitive wildlife
species known to occur in the region were reported in the CNDDB. Many of the sensitive species addressed are also included as “Identified Species” and are covered under the NCCP/HCP. In addition, a few species were included in the table of sensitive wildlife presented below that have no Federal or State status, but that were included in the NCCP/HCP. These “Target Species” are included and analyzed in this document to provide a comprehensive list of species regardless of their Federal or State status. Six sensitive wildlife species or NCCP/HCP species which were observed on-site include white-tailed kite (Elanus leucurus), yellow-breasted chat (Icteria virens), coastal California gnaticatcher, least Bell’s vireo, willow flycatcher (Empidonax traillii), and coyote (Canis latrans).

Focused sensitive wildlife surveys for arroyo toad, burrowing owl, coastal California gnaticatcher, least Bell’s vireo, and southwestern willow flycatcher were conducted. An analysis of sensitive wildlife species is presented as follows.

The following wildlife species have been documented to occur within the region, but are not expected to occur because of lack of suitable habitat, the determination that they are not present on-site, or because the project site is outside of the known range for these species: San Diego fairy shrimp (Branchinecta sandiegonensis), Riverside fairy shrimp (Streptocephalus wootteni), Quino checkerspot butterfly (Euphydryas editha quino), Santa Ana sucker (Catostomus santeanae), Santa Ana speckled dace (Rhinichthys osculus ssp. 3), western spadefoot (Spea hammondii), black-bellied slender salamander (Batrachoseps nigriventris), northern leopard frog (Rana pipiens), coastal rosy boa (Charina trivirgata roseofusca), ring-necked snake (Diadophis punctatus), two-striped garter snake (Thamnophis hammondii), western pond turtle (Actinemys marmorata), golden eagle (Aquila chrysaetos), western yellow-billed cuckoo (Coccyzus americanus occidentalis), western snowy plover (Charadrius alexandrinus nivosus), grasshopper sparrow (Ammodramus savannarum), Belding's savannah sparrow (Passerculus sandwichensis beldingi), California least tern (Sternula antillarum browni), tri-colored blackbird (Agelaius tricolor), cactus wren (Campylorhynchus brunneicapillus), California black rail (Laterallus jaicaensis), light-footed clapper rail (Rallus longirostris levipes), pocketed free-tailed bat (Nyctinomops femorosaccus), big free-tailed bat (Nyctinomops macrotis), Mexican long-tongued bat (Choeronycteris mexicana), Southern California saltmarsh shrew (Sorex ornatus salicornicus), Pacific pocket mouse (Perognathus longimembris pacificus), southern grasshopper mouse (Onychomys torridus ramona), and American badger (Taxidea taxus).

Sensitive wildlife species or NCCP/HCP species with potential to occur on-site include arboreal salamander (Aneides lugubris), coast range newt (Taricha torosa torosa), coast patch-nosed snake (Salvadora hexalepis virgultea), red-diamond rattlesnake (Crotalus ruber), coast horned lizard (Phrynosoma coronatum), Coronado skink (Eumeces skiltonianus interparietalis), orange-throated whiptail (Cnemidophorus hyperythrus), western mastiff bat (Eumops perotis californicus), San Diego black-tailed jackrabbit (Lepus californicus bennettii), coastal (western) whiptail (Cnemidophorus tigris stejnegeri), sharp-shinned hawk (Accipiter striatus), rough-legged hawk (Buteo lagopus), red-shouldered hawk (Buteo lineatus), northern harrier (Circus cyaneus), burrowing owl (Athene cunicularia), Southern California rufous-crowned sparrow (Aimophila ruficeps canescens), prairie falcon (Falco mexicanus), American peregrine falcon (Falco peregrinus anatum), loggerhead shrike (Lanius ludovicianus), long-eared owl (Asio otus), pallid bat (Antrozous pallidus), southwestern San Diego pocket mouse (Chaetodipus fallax fallax), San Diego desert woodrat (Neotoma lepida intermedia), and gray fox (Urocyon cinereoargenteus).
Exhibit 3.4-3
Special-Status Plant Species

Because of the presence of suitable habitat, focused surveys were conducted for arroyo toad, burrowing owl, coastal California gnatcatcher, least Bell’s vireo, and southwestern willow flycatcher, and are discussed in further detail as follows.

**Arroyo Toad**
The arroyo toad is a Federal Endangered Species and a Species of Special Concern. Focused surveys for this species were conducted by Michael Brandman Associates (MBA) in 2008, and PCR in 2010. No arroyo toads were found on-site. Because of the negative results of focused surveys, and lack of suitable habitat for this species on-site, this species is not expected to occur within the project site. Therefore, surveys were not repeated after 2010.

**Burrowing Owl**
The burrowing owl is a Species of Special Concern species. Focused surveys were conducted for this species by PCR in 2012, 2013, 2014, and 2017. No burrowing owl were observed during focused surveys and, because of the negative results of focused surveys, are not expected to occur within the project site.

**Coastal California Gnatcatcher**
The coastal California gnatcatcher is a Federal Threatened and Species of Special Concern species. This species is also a “Target Species” of the NCCP/HCP. Focused surveys were conducted for this species by MBA in 2008 and PCR in 2010, 2012, 2013, 2014, 2015, and by ESA in 2017. An incidental sighting of one dispersing coastal California gnatcatcher was observed on August 3, 2010 during a focused special-status plant survey conducted by PCR. Because the coastal California gnatcatcher was observed in disturbed/ruderal habitat (and not coastal sage scrub habitat), and since results of the focused breeding season survey were negative in 2010, it is believed this individual observed was likely a juvenile dispersing through the project site. No coastal California gnatcatchers were observed on-site during focused breeding season surveys conducted in 2008, 2010, 2012, or 2013. During focused surveys conducted in 2014, a coastal California gnatcatcher pair was observed within the western portion of the project site on March 27, 2014. The pair did not appear to be engaged in any definite breeding-related activity and was not observed within the project site on subsequent surveys conducted during that season. However, what was believed to be the same pair was later observed off-site on May 2, 2014, on the west side of Cannon Street in a more extensive area of poor-quality coastal sage scrub habitat. No coastal California gnatcatchers were observed during the 2015 and 2017 focused breeding season surveys. In addition, incidental sightings of two separate coastal California gnatcatcher individuals were observed on both June 9 and 27, 2017, by ESA biologist Amy Lee and Michael Cady during jurisdictional delineation surveys. The locations of the sightings are depicted on Exhibit 3.4-4. Because the habitat where the coastal California gnatcatchers were seen were disturbed/non-native herbaceous cover or within disturbed areas perched on mule fat (and not coastal sage scrub), and since results of the focused breeding season surveys were negative (for 2017 focused surveys), it is believed these individuals observed were likely juveniles dispersing through the project site. A number of coastal California gnatcatcher occurrences are documented in the USFWS occurrences database within the vicinity of the project site. Thus, it is likely that the coastal California gnatcatchers observed on-site are foraging or dispersing through the project site from adjacent areas, particularly off-site areas downstream of the project site to the west. However, no breeding pairs were found within the project site during the
2008, 2010, 2012, 2013, 2014, 2015, or 2017 focused breeding season surveys. The coastal California gnatcatcher is a covered species with implementation of the NCCP/HCP; however, no impacts are proposed to coastal sage scrub habitat, which will be avoided by the project. The project site is not within critical habitat for this species; the nearest final critical habitat for coastal California gnatcatcher is 0.3-mile south of the project site.

**Least Bell's Vireo**

The least Bell's vireo is a Federal Endangered and State Endangered species. Least Bell's vireo is conditionally covered under the NCCP/HCP.17 Focused surveys were conducted for this species by MBA in 2008 and PCR in 2010 and 2012. Least Bell's vireo was observed within the project site during focused surveys in 2008, 2010, and 2017; none were observed during the 2012, 2013, 2014, or 2015 surveys. During the 2010 surveys conducted by PCR, a pair of least Bell's vireo was observed within the canopy of the southern cottonwood-willow riparian forest during the May 16, 2010 survey. Only the male least Bell's vireo was seen or heard during subsequent surveys (on May 26, June 5 and 16, July 17, and July 27, 2010). The location of least Bell's vireo territory on-site which was delineated by MBA is shown in Exhibit 3.4-4. Least Bell's vireo was not detected during surveys in 2012, 2013, 2014, or 2015. However, two separate individual males were detected by sight and vocalization during the 2017 focused surveys, but because of the presence of least Bell's vireo within the southern cottonwood-willow-riparian forest located within the project site, the entire extent of the southern cottonwood-willow riparian forest has been evaluated as potential habitat for this species, as depicted in Exhibit 3.4-4.

**Southwestern Willow Flycatcher**

The southwestern willow flycatcher is a Federal Endangered and State Endangered species. The project site is not within critical habitat for this species. The southwestern willow flycatcher is conditionally covered under the NCCP/HCP. Focused surveys were conducted for this species by MBA in 2008 and PCR in 2010, 2012, 2013, 2014, 2015, and ESA in 2017. No southwestern willow flycatchers were observed on-site during focused surveys. However, willow flycatchers (i.e., not the southwestern subspecies) were observed during the 2012 survey,1 as shown in Exhibit 3.4-4. Two willow flycatchers were observed foraging and calling in the trees within the non-native herbaceous cover/black willow scrub community that border the fallow field in the eastern portion of the project site.

The habitat that these willow flycatchers were observed within is considered unsuitable as potential nesting habitat; therefore, it is assumed that both birds were migrants passing through the area and are not the southwestern willow flycatcher subspecies. In addition, one willow flycatcher was observed calling in two locations within southern cottonwood-willow riparian forest within the north-central portion of the project site. The habitat that this willow flycatcher was observed in is considered suitable for nesting; however, no breeding willow flycatchers were observed during the focused surveys.

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1 Willow flycatcher (i.e., not the southwestern subspecies) were also surveyed for during the focused surveys for southwestern willow flycatcher.
Jurisdictional Features

The project site contains one perennial United States Geological Survey (USGS) blueline stream (Santiago Creek) and four associated tributaries, Tributaries A, B, C, and D. Total jurisdiction within the project site consists of 5,686 linear feet of perennial streambed that supports approximately 4.24 acres of United States Army Corps of Engineers (USACE)/Regional Water Quality Control Board (RWQCB) jurisdictional “waters of the United States”/“waters of the State,” of which 1.19 acres are wetlands, and 13.62 acres of CDFW jurisdictional streambed and associated riparian vegetation, as summarized in Table 3.4-2 and shown on Exhibit 3.4-5.

Table 3.4-2: Jurisdictional Feature Summary

<table>
<thead>
<tr>
<th>Feature</th>
<th>Length</th>
<th>Acres</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santiago Creek</td>
<td>5,355</td>
<td>4.18 (1.19)</td>
<td>13.46</td>
</tr>
<tr>
<td>Tributary A</td>
<td>68</td>
<td>&lt;0.01</td>
<td>N/A*</td>
</tr>
<tr>
<td>Tributary B</td>
<td>48</td>
<td>0.01</td>
<td>N/A*</td>
</tr>
<tr>
<td>Tributary C</td>
<td>51</td>
<td>0.02</td>
<td>N/A*</td>
</tr>
<tr>
<td>Tributary D</td>
<td>184</td>
<td>0.03</td>
<td>0.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,686</strong></td>
<td><strong>4.24 (1.19)</strong></td>
<td><strong>13.62</strong></td>
</tr>
</tbody>
</table>

Notes:
- Jurisdictional acreages overlap and are not additive
- RWQCB acreages represent the portion of USACE jurisdiction that meets the three-parameter definition of a wetland
- Tributaries outlet within Santiago Creek and are therefore encompassed by the CDFW jurisdiction already quantified for Santiago Creek

Source: PCR, 2013.

The Santiago Creek Watershed is approximately 99 square miles in size measured from the point where the stream enters the Santa Ana River in the City of Santa Ana up to the southwest-facing slopes of the Santa Ana Mountains in the Cleveland National Forest. Santiago Creek is a USGS blueline drainage that supports regional flow from a significant upstream watershed that drains several major canyons associated with the Santa Ana Mountains. The majority of canyon runoff from the Santa Ana Mountains drains to the Santiago Reservoir which then conveys flow to the Villa Park Dam facility located approximately 1.25 miles upstream of the project site. One major canyon feature known as Walnut Canyon, and several minor canyon features associated with the adjacent Santa Ana Mountain foothills to the north/northeast also convey flow to Santiago Creek between the Villa Park Dam and the project site. Currently, five drainage outlets flow into Santiago Creek, including a large concrete box culvert which transports flows from Handy Creek, and an underground storm drain which conveys flows from the residential development to the north. Flows conveyed through the project site ultimately discharge to the Pacific Ocean via the Santa Ana River located approximately 7 miles southwest of the project site.

The on-site portion of Santiago Creek is an incised perennial USGS blueline drainage that primarily supports southern cottonwood-willow riparian forest, as well as the development of fringe wetlands.
adjacent to the active channel. Santiago Creek bifurcates into two streambeds near the center of the site, which ultimately rejoin in the western portion of the site as a single drainage feature. Soils associated with Santiago Creek were dominated by sandy loam soils underlain by less permeable silty clay soils or granitic bedrock.

Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic material.

Corridors effectively act as links between different populations of a species. A group of smaller populations (termed “demes”) linked together via a system of corridors is termed a “metapopulation.” The long-term health of each deme within the metapopulation is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population’s genetic variability is generally associated with an increase in a population’s health and long-term viability.

Corridors mitigate the effects of habitat fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and, (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as “wildlife corridor,” “travel route,” and “wildlife crossing” to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

- **Travel Route:** A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.
Exhibit 3.4-5
Jurisdictional Features

• **Wildlife Corridor:** A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as “habitat or landscape linkages”) can provide both transitory and resident habitat for a variety of species.

• **Wildlife Crossing:** A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often “choke points” along a movement corridor.

**Wildlife Movement within the Project Site**

From a regional perspective, the project site abuts Santiago Oaks Regional Park along the northeastern most portion of the project site, and is approximately 0.5 mile northwest of Santiago Creek Recharge Basin. The project site is situated approximately 0.6-mile northeast of El Modena Open Space, 2.4 miles north-northwest of Peters Canyon Reservoir, 3.8 miles northwest of Irvine Lake, and 2.0 miles west of the Santa Ana Mountains (Cleveland National Forest). The project site is not within NCCP/HCP established reserve assembly or wildlife corridors. Santiago Creek runs through the northern portion of the project site, and merges with the Santa Ana River approximately 7.0 miles southwest of the project site. Because of the past urbanization of the region, large open space areas in the immediate vicinity of the project site are limited to Santiago Oaks Regional Park, Santiago Creek Recharge Basin, and El Modena Open Space. The project site is immediately surrounded by residential development to the north and south, which may deter the movement of larger mammals that require larger home range areas and dispersal distances or dense vegetative cover. However, species that are less restricted in movement pathway requirements or are adapted to urban areas (e.g., raccoon, skunk, coyote, birds) will likely move through the project site.

From east to west, the project site is bordered by Santiago Oaks Regional Park (to the east) and vacant land, which connects to the Santiago Creek Recharge Basin (to the west). Santiago Creek provides habitat, which connects Santiago Oaks Regional Park to the Santiago Creek Recharge Basin. Although there is somewhat limited riparian habitat downstream of the project site associated with the Santiago Creek Recharge Basin, the portion of Santiago Creek that is found within the project site provides dense riparian and wetland habitat and thus functions as a wildlife movement corridor which supports wildlife movement within and through the site. In addition, by providing resources, such as a perennial water source (for a variety of species, including several fishes), foraging habitat, nesting and den sites, and cover (for both predator and prey species), the project site provides live-in and movement habitat for many invertebrate, fish, herptile, avian, and mammal species, including NCCP/HCP identified species (such as least Bell’s vireo and coyote, both of which were observed on-site).

Although Santiago Creek is channelized and surrounded by development along portions of its extent, Santiago Creek serves as a corridor for wildlife movement by providing patches of habitat, as well as a water source, which connect the Santa Ana Mountains to the Santa Ana River, and eventually flows...
out to the Pacific Ocean. Thus, the habitat associated with Santiago Creek within the northern portion of the project site supports live-in and movement habitat for species on a local scale (i.e., some limited live-in habitat for fish, and live-in and at least marginal movement habitat for amphibian, reptile, bird, and mammal species), and likely functions to facilitate wildlife movement for a number of species on a regional scale.

Trees

PCR conducted a tree survey in 2012 that indicated that there were 204 trees within the project development footprint. Common tree species include lemon bottlebrush, eucalyptus, coast live oak, and willow. Most of the trees (77 percent) were found to be in fair condition, with 9 percent in good condition, and 13 percent in poor condition. Two trees were found to be dead or nearly dead.

3.4.3 - Regulatory Framework

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Under provisions of Section 9(a)(1)(B) of the FESA, unless properly permitted, it is unlawful to “take” any listed species. “Take” is defined in Section 3(18) of FESA: “...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Further, the USFWS, through regulation, has interpreted the terms “harm” and “harass” to include certain types of habitat modification as forms of “take.” These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action which could affect a federally listed plant or animal species, the property owner and agency are required to consult with USFWS pursuant to Section 7 of the ESA if there is a federal nexus, or pursuant to Section 10 of the ESA. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

Some of the USFWS offices maintain a database of listed species within their jurisdiction, for example the Sacramento11 and Carlsbad12 offices. The Carlsbad USFWS Office jurisdiction encompasses the counties of Los Angeles, Orange, Riverside, San Bernardino, Imperial, and San Diego.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects individuals as well as any part, nest, or eggs of any bird listed as migratory. In practice, federal permits issued for activities that potentially impact migratory birds typically have conditions that require surveys for nesting birds prior to project activities which may result in disturbance. In the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest, or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography, etc.), and is based on the
professional judgment of a monitoring biologist. A list of migratory bird species protected under the MBTA is published by USFWS.

**Clean Water Act**

*Section 404*

Section 404 of the Clean Water Act (CWA) regulates the discharge of dredged or fill material into waters of the United States and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. Implementing regulations for the CWA define waters of the United States as “rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands.” Wetlands are defined as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.” The permit review process entails an assessment of potentially adverse impacts to USACE jurisdictional waters of the United States.

Over the years, the USACE has modified its regulations, typically due to evolving policy or judicial decisions, through the issuance of Regulatory Guidance Letters, memorandums, or more expansive instruction guidebooks. These guidance documents help to update and define how jurisdiction is claimed, and how these waters of the United States will be regulated. The most recent, significant modification occurred on June 5, 2007, subsequently updated in December 2008, when the USACE and the U.S. Environmental Protection Agency (EPA) issued a series of guidance documents outlining the requirements and procedures, effective immediately, to establish jurisdiction under Section 404 of the CWA and the Section 10 of the Rivers and Harbors Act of 1899. These documents are intended to be used for all jurisdictional delineations and provide specific guidance for the jurisdictional determination of potentially jurisdictional features affected by the U.S. Supreme Court rulings in *Rapanos v. the United States* and *Carabell v. the United States* 547 U.S. 715 (2006) (jointly referred to as Rapanos).

The Rapanos case outlines the conditions and criteria used by the USACE to assess and claim jurisdiction over non-isolated, non-navigable, ephemeral tributaries. Under a plurality ruling, the Court noted that certain “not relatively permanent” (i.e., ephemeral), non-navigable tributaries must have a “significant nexus” to downstream traditional navigable waters to be jurisdictional. An ephemeral tributary has a significant nexus to downstream navigable “waters” when it has “more than a speculative or an insubstantial effect on the chemical, physical, and/or biological integrity of a Traditional Navigable Water (TNW).” A significant nexus is established through the consideration of a variety of hydrologic, geologic and ecological factors specific to the particular drainage feature in question. For drainage features that do not meet the significant nexus criteria, a significant nexus determination is provided by the USACE to the EPA for the final determination of federal jurisdiction. Drainage features that do not meet the significant nexus criteria based on completion of an AJD, and/or are determined to be isolated pursuant to the SWANCC ruling (see below), may still be regulated by CDFW under Fish and Game Code Section 1600 or the RWQCB under the Porter-Cologne Water Quality Act.

On January 15, 2003, the USACE and EPA issued a Joint Memorandum to provide clarifying guidance regarding the United States Supreme Court ruling in the Solid Waste Agency of Northern Cook County
v. United States Army Corps of Engineers, No. 99-1178 (January 9, 2001) (“the SWANCC ruling”), (Federal Register: Vol. 68, No. 10.). This ruling held that the CWA does not give the federal government regulatory authority over non-navigable, isolated, intrastate waters. As a result of this decision, some previously regulated depressional areas such as mudflats, sandflats, wetlands, prairie potholes, wet meadows, playa lakes, natural ponds, and vernal pools, which are not hydrologically connected to other intra- or inter-state “waters of the United States,” are no longer regulated by the USACE.

Section 401

The mission of the RWQCB is to develop and enforce water quality objectives and implement plans that will best protect the beneficial uses of the state’s waters, recognizing local differences in climate, topography, geology, and hydrology. The California RWQCB is responsible for implementing compliance not only with state codes such as the California Water Code but also some federal acts such as Section 401 of the CWA. Section 401 of the CWA requires that any applicant for a federal permit for activities that involve a discharge to waters of the State shall provide the federal permitting agency with a certification from the state in which the discharge is proposed that states that the discharge will comply with the applicable provisions of the federal CWA. As such, before the USACE will issue a CWA Section 404 permit, applicants must apply for and receive a Section 401 water quality certification (WQC) from the RWQCB. The RWQCB regulates “discharging waste, or proposing to discharge waste, within any region that could affect “waters of the State” (Water Code § 13260 (a)), pursuant to provisions of the Porter-Cologne Water Quality Control Act which defines RWQCB jurisdictional “waters of the State” as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code § 13050).

With the exception of isolated waters and wetlands, most discharges of fill to waters of the State are also subject to a CWA Section 404 permit. If a CWA Section 404 permit is not required for the project, the RWQCB may still require issuance of Waste Discharge Requirements (WDR) under the Porter-Cologne Water Quality Control Act. The RWQCB may regulate isolated waters that are not under jurisdiction of the USACE through issuance of WDR’s. However, projects that obtain a Section 401 WQC are simultaneously enrolled in a statewide general WDR. Processing of Section 401 WQC’s generally requires submittal of 1) a construction Storm Water Pollution Prevention Plan (SWPPP), 2) a final water quality technical report that demonstrates that post-construction stormwater Best Management Practices (BMPs) comply with the local design standards for municipal storm drain permits (MS4 permits) implemented by the State Water Resources Control Board effective January 1, 2011, and 3) a conceptual Habitat Mitigation and Monitoring Plan to compensate for permanent impacts to RWQCB waters, if any. In addition to submittal of a draft California Environmental Quality Act (CEQA) document, a WQC application typically requires a discussion of avoidance and minimization of impacts to RWQCB jurisdictional resources, and efforts to protect beneficial uses as defined by the local RWQCB basin plan for the project. The RWQCB cannot issue a Section 401 WQC until the project CEQA document is certified by the lead agency.

State

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires state
agencies to consult with CDFW when preparing CEQA documents. The purpose is to ensure that the state lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code §2080). CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code § 2081).

**California Department of Fish and Game Codes**

Fully protected fish species are protected under Section 5515; fully protected amphibian and reptile species are protected under Section 5050; fully protected bird species are protected under Section 3511; and fully protected mammal species are protected under Section 4700. The California Fish and Game Code defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Except for take related to scientific research, all take of fully protected species is prohibited. Section 3503 of the California Fish and Game Code prohibits the killing of birds or the destruction of bird nests. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests. Sections 2062 and 2067 define endangered and threatened species.

**California Department of Fish and Wildlife Species of Concern**

In addition to formal listing under FESA and CESA, species receive additional consideration by CDFW and local lead agencies during the CEQA process. Species that may be considered for review are included on a list of “Species of Special Concern,” developed by the CDFW. It tracks species in California whose numbers, reproductive success, or habitat may be threatened. In addition to Species of Special Concern, the CDFW identifies animals that are tracked by the CNDDB, but warrant no federal interest and no legal protection. These species are identified as California Special Animals.

**Porter-Cologne Water Quality Control Act**

CDFW is a trustee agency that has jurisdiction under Section 1600, et seq. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds...except when the department has been notified pursuant to Section 1601.” Additionally, CDFW may assert jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over 4 inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a
community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. All of the wetlands and waterways in the project site are waters of the State, which are protected under this act.

Historically, California relied on its authority under Section 401 of the CWA to regulate discharges of dredged or fill material to California waters. That section requires an applicant to obtain “water quality certification” from the State Water Resources Control Board (SWRCB) through its RWQCB to ensure compliance with state water quality standards before certain federal licenses or permits may be issued. The permits subject to Section 401 include permits for the discharge of dredged or fill materials (CWA Section 404 permits) issued by the USACE. Waste discharge requirements under the Porter-Cologne Water Quality Control Act were typically waived for projects that required certification. With the recent changes that limited the jurisdiction of wetlands under the CWA, the SWRCB has needed to rely on the report of waste discharge process.

California Native Plant Society
The CNPS maintains a rank of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. The following identifies the definitions of the CNPS ranks:

- Rank 1A: Plants presumed Extirpated in California and either rare or extinct elsewhere
- Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- Rank 2A: Plants presumed Extirpated in California, but common elsewhere
- Rank 2B: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- Rank 3: Plants about which we need more information—A Review List
- Rank 4: Plants of limited distribution—A Watch List

All plants appearing on CNPS Rank 1 or 2 are considered to meet State CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA.

Regional

County of Orange (Central/Coastal) Natural Community Conservation Plan/Habitat Conservation Plan
The project site is within the central subregion of the County of Orange (Central/Coastal) NCCP/HCP, as shown in Exhibit 3.4-6. The NCCP/HCP was reviewed and approved by the USFWS and CDFW in 1996 to address protection and management of coastal sage scrub habitat and coastal sage scrub-obligate species, as well as other covered habitats and species, and mitigate anticipated impacts on those habitats and species on a programmatic, subregional level rather than on a project-by-project, single-species basis. A habitat reserve in excess of 37,000 acres was established for the protection of
coastal sage scrub, other upland habitats, the coastal California gnatcatcher, and the other primarily coastal sage scrub-dependent species identified in the NCCP/HCP. Specifically, the NCCP/HCP, the USFWS, and the CDFW authorized take of 39 identified species of plants and wildlife (including covered and conditionally covered species). Further, the NCCP/HCP contains requirements for adaptive management, interim management, and funding management for the reserve as well as procedures and minimization measures related to the take of identified species and habitat. Thus, the NCCP/HCP provides for the protection and management of a broad range of plant and wildlife populations while providing certainty to the public and affected landowners with respect to the location of future development and open space in the subregion.

The NCCP/HCP provides for the protection of a number of plant and animal species, referred to as Target Species and Identified Species. There are also identified NCCP/HCP species that have conditional regulatory coverage under the NCCP/HCP referred to as conditionally covered Identified Species. The conservation and management of these species is provided for under the NCCP. A development activity authorized under the NCCP/HCP necessarily includes protection of these species and also means that no further action under CESA or FESA is required for the approved activity should any of the Target or Identified Species be subsequently listed as endangered or threatened under either of these Acts. As a consequence, Target and Identified Species are considered sensitive.

Local

City of Orange

General Plan

The City of Orange General Plan sets forth the following goals and policies relevant to biological resources:

- **Goal 4.0**: Conserve and protect wildlife habitat, plant and animal species of concern, and general biodiversity.
- **Policy 4.1**: Preserve and protect native and habitat-supporting plant resources throughout the City.
- **Policy 4.2**: Work with agencies, including the Orange County Flood Control District, to identify opportunities to enhance the natural qualities of Santiago Creek to protect habitat and reintroduce native plants and animals.
- **Policy 4.3**: Reduce the impact of urban development on important ecological and biological resources.
- **Policy 4.4**: Repair or improve ecological and biological conditions in the urban and natural environments when reviewing proposals for site development and redevelopment, as well as public improvements.
- **Policy 4.5**: Protect the Santiago Creek and Santa Ana River corridors from premature urbanization to ensure the continued availability of important sand and gravel, flood control, water recharge, biological, and open space resources.

Tree Preservation Ordinance

Orange Municipal Code Section 12.32.110 sets forth the Tree Preservation Ordinance, which requires applicants for subdivision maps or grading permits to identify the location of trees proposed for
removal. If the City of Orange approves the subdivision map, or grading permit, City staff have the discretion to relieve the applicant of any necessity to apply for a separate permit for tree removal. City staff have the discretion to impose conditions on tree removal activities.

3.4.4 - Methodology

Descriptions and analysis in this section are based on the Biological Resources Assessment, Jurisdictional Delineation, and Tree Survey, which were all prepared by ESA and PCR. The reports are provided in Appendix G. Each report is summarized as follows:

Biological Resources Assessment

ESA (formerly PCR) prepared a Biological Resources Assessment that evaluated the potential presence of sensitive biological resources. The assessment was based on field reconnaissance and appropriate reference materials.

PCR first reviewed relevant literature on the biological resources of the project site and surrounding vicinity. CNDDB, a CDFW species account database, was reviewed for all pertinent information regarding the localities of known observations of sensitive species and habitats in the vicinity of the project site. The vicinity of the project site includes the La Habra, Yorba Linda, and Prado Dam, Anaheim, Orange, Black Star Canyon, Newport Beach, Tustin, and El Toro topographic quadrangles. Federal register listings, protocols, and species data provided by USFWS and CDFW were reviewed in conjunction with anticipated Federally and State listed species potentially occurring within the vicinity. In addition, numerous regional flora and fauna field guides were utilized to assist in the identification of species and suitable habitats. Documentation of previous assessments and surveys conducted on the project site was also reviewed.

A general biological survey and vegetation mapping was conducted by PCR biologists Steve Nelson and Maile Tanaka on March 24, 2010 to document natural communities and existing conditions. The vegetation mapping was updated on March 16 and April 21, 2017 by ESA biologists Maile Tanaka, Lauren Singleton, and Amy Lee. During the course of this survey, an inventory of all plant and wildlife species observed was compiled. Survey coverage of the entire project site, with special attention to sensitive habitats or those areas potentially supporting sensitive flora or fauna, was ensured using aerial photographs.

Natural communities were mapped directly in the field utilizing a 250-scale (1” = 250’) aerial photograph. Natural community names and descriptions follow the Orange County Habitat Classification System (OCHCS) (Gray and Bramlet 1992). After completing the fieldwork, the natural community polygons were digitized using Geographic Information System (GIS) technology to calculate acreages.

All plant species observed during surveys were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy follows Hickman (1993). Common plant names, when not available from Hickman, were taken from Munz (1974) and McAuley (1996). Because common names vary significantly between references, scientific names are included upon initial mention of each species; common names consistent throughout the report are employed thereafter.
All wildlife species observed within the project site, as well as diagnostic sign (call, tracks, nests, scat, remains, or other sign), were recorded in field notes. Binoculars and regional field guides were utilized for the identification of wildlife, as necessary. Wildlife taxonomy follows Stebbins (2003) for amphibians and reptiles, the American Ornithologists’ Union (1998) for birds, and Jameson and Peeters (1988) for mammals. Scientific names are used during the first mention of a species; common names only are used in the remainder of the text.

Jurisdictional Delineation

A jurisdictional delineation of all existing on-site drainage features was conducted by PCR regulatory/environmental scientist Amir Morales and biologist Maile Tanaka on April 28 and May 23, 2011 and by Amir Morales and PCR biologist Ezekiel Cooley on September 26, 2012 to assess the extent of “waters of the United States”/“waters of the State” or wetlands under the jurisdiction of the USACE/RWQCB, or streambed and associated riparian habitat under the jurisdiction of the CDFW.

Tree Survey

In accordance with the City of Orange Municipal Code, Title 12 Streets and Sidewalks and Public Places, Chapter 12.32 Tree Preservation (Tree Preservation Ordinance), a tree survey was conducted by PCR biologists Maile Tanaka and Zeke Cooley and PCR affiliated biologists Joanna Nigro and Gerhard Bombe on April 9, 2010; by Joanna Nigro and Maile Tanaka on March 30, 2011; by Joanna Nigro on June 13, 2011; and by PCR biologists Bob Huttar, Ezekiel Cooley, and Maile Tanaka on September 26, 2012. Ms. Nigro, Mr. Bombe, and Mr. Huttar are International Society of Arboriculture (ISA) Certified Arborists.

The Tree Preservation Ordinance protects all trees, regardless of species, that measure a minimum of 10.5 inches in circumference, measured at a point 24 inches above the ground. The tree survey consisted of walking the portion of the project site within the project development footprint (tree survey area), which comprised approximately 71.10 acres on-site, in order to locate all regulated trees meeting the size requirements as defined in the Tree Preservation Ordinance. PCR biologists visually assessed the size of each tree at 24 inches above ground to determine if they were subject to the requirements of the City of Orange Tree Preservation Ordinance; however, the DBH of each tree was recorded at 54 inches above ground in accordance with the ISA standard. Each tree was tagged and numbered then assessed according to ISA standards to include the DBH and height. Trees that could not be tagged either because they were inaccessible or because of duplicate tree numbering (trees of the same species close to each other that are individually numbered with sub-letters) were noted. Additionally, overall health as well as aesthetics and balance were given a rating based on the tree’s structure and presence of disease. The location of each tree was collected in the field using a Global Positioning System handheld unit. Following data collection, the digital information was uploaded and incorporated within PCR’s project-specific Geographic Information System database to provide a figure with specific tree locations within the project site.

### 3.4.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, biological resources impacts resulting from the implementation of the proposed project would be considered significant if the project would:
1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

3.4.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Special-status Plant Species

**Impact BIO-1:** The proposed project would not have a substantial adverse effect on special status plant species.

*Impact Analysis*

Implementation of the proposed project would result in the direct removal of existing vegetation. Two sensitive plant species were observed within the project site during focused sensitive plant surveys. These species are the Southern California black walnut and southern tarplant.

*Southern Tarplant*

Based on the 2017 special-status plant survey, it is estimated that less than 100 southern tarplants occur on-site, and are located within the project’s development footprint (Exhibit 3.4-7). Impacts to less than 100 southern tarplants are not expected to threaten regional populations of this species, and in addition, the Conservation Measure applied to preserve southern tarplant by salvaging seed was already implemented in order to prevent loss of this local population due to current on-site activities related to existing backfilling and material recycling operations, which are not related to the proposed project. As such, impacts to southern tarplant associated with the implementation of the proposed project are considered less than significant and no mitigation measures would be required.
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Southern California Black Walnut
A total of 71 Southern California black walnuts occur within the southern cottonwood-willow riparian forest and non-native herbaceous cover communities within the northwestern portion of the project site. This area will be avoided by the proposed project; however, one walnut may potentially be impacted by the proposed project, as shown in Exhibit 3.4-7. However, the loss of one walnut tree, which is a CNPS Rank 4.2 species, from a population of 70 Southern California black walnut trees that will be preserved and continue to reproduce and spread their seeds, is not considered a significant impact. Therefore, impacts to the Southern California black walnuts are less than significant and no mitigation measures would be required.

In addition, there are preliminary trails and their alignments for the specific plan that are conceptual in nature, and final design will be undertaken at some future date. More specifically, with the exception of Trail A (in Planning Area B paralleling East Santiago Canyon Road) and Trail F (in Planning Area B north of Planning Area C and with multiple uses as recreation trail, fuel modification maintenance and emergency vehicle access) final trail design, alignment and points of connectivity with existing and future adjacent trails will be accomplished through a collaborative effort involving the City of Orange, the Orange Park Acres Trail Committee, the Santiago Creek Greenway Alliance, Orange County Parks, and representatives of the Applicant. As outlined in the Preface of this document, approximately $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway will be funded, as part of the proposed project. Said improvements are to be completed or funded prior to the 60th Certificate of Occupancy.

In order to avoid or minimize trail impacts to sensitive biological resources, the following design features are recommended for incorporation prior to final design of the trails:

1. Trail D should be designed to avoid or minimize impacts to coastal sage scrub and other native habitats, and should be designed to traverse through vegetation communities that already exhibit disturbance. This trail should be a seasonal trail that is closed, or partially closed, adjacent to habitat that may support special-status birds during breeding season. Trail C and Trail E should utilize existing trail alignments and/or areas that already exhibit disturbance to the extent possible.

2. Educational kiosks are recommended to inform the public about the ecology, biological resources, and special-status species of the area, as well as emphasizing the importance of staying on designated trails, respecting seasonal trail closures, and the community’s responsibility in protecting the natural resources.

3. Future environmental analysis will be needed at the time trail design is completed and trail implementation is proposed.

With the adoption of the recommended design features, potentially significant impacts will be avoided or minimized.

Level of Significance Before Mitigation
Less than significant impact.
Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Special-status Wildlife Species

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<th>Impact BIO-2</th>
<th>The proposed project may have a substantial adverse effect on special status wildlife species.</th>
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Impact Analysis

Implementation of the proposed project would result in the direct removal of existing habitat for wildlife species. Biological surveys for the project site indicated that sensitive wildlife species were observed or have at least a moderate potential to occur within the project site. Observed species include white-tailed kite, yellow-breasted chat, coastal California gnatcatcher, least Bell’s vireo, willow flycatcher, and coyote. Species with potential to occur on-site include arboreal salamander, coast range newt, coast patch-nosed snake, red-diamond rattlesnake, coast horned lizard, Coronado skink, orange-throated whiptail, western mastiff bat, San Diego black-tailed jackrabbit, coastal (western) whiptail, sharp-shinned hawk, rough-legged hawk, red-shouldered hawk, northern harrier, burrowing owl, Southern California rufous-crowned sparrow, prairie falcon, American peregrine falcon, loggerhead shrike, long-eared owl, southwestern willow flycatcher, pallid bat, northwestern San Diego pocket mouse, San Diego desert woodrat, and gray fox. Focused surveys were conducted for arroyo toad, burrowing owl, coastal California gnatcatcher, least Bell’s vireo, and southwestern willow flycatcher.

With the exception of coast patch-nosed snake, coast range newt, white-tailed kite, prairie falcon, burrowing owl, least Bell’s vireo, willow flycatcher, loggerhead shrike, yellow-breasted chat, long-eared owl, western mastiff bat, pallid bat, San Diego black-tailed jackrabbit, and northwestern San Diego pocket mouse, all the potentially present or observed species are covered species under the NCCP/HCP, and with the implementation of the NCCP/HCP, Target Species and Identified Species are conserved within the region in which the Central/Coastal Subregion NCCP/HCP is located. Prairie falcon and least Bell’s vireo are conditionally covered and are discussed in further detail below. Willow flycatcher is also discussed in further detail. Coas patch-nosed snake, coast range newt, loggerhead shrike, yellow-breasted chat, long-eared owl, western mastiff bat, pallid bat, San Diego black-tailed jackrabbit, and northwestern San Diego pocket mouse are considered Species of Special Concern by the CDFW and do not carry a federal or state listing as threatened or endangered. The project is avoiding impacts to coastal sage scrub habitats, and the proposed project was designed to minimize impacts to Santiago Creek and the northern portion of the project site where native habitat occurs. The majority of the suitable habitat within Santiago Creek and northern portion of the project site, which has potential to support special-status species (i.e., southern cottonwood willow riparian forest, coastal sage scrub, and other native habitats), will be avoided. Furthermore, the availability of contiguous habitat within the project site will continue to provide resources and foraging habitat for these species, if they are present. Thus, the loss of individuals as a result of the proposed project would not be expected to reduce regional population numbers, and impacts to
these special-status wildlife species are considered adverse but less than significant and no mitigation measures would be required for the non-ESA listed covered species.

Special-status wildlife species with potential to occur or which were observed on-site that are covered or conditionally covered by the NCCP/HCP include the arroyo toad, burrowing owl, coastal California gnatcatcher, prairie falcon, least Bell’s vireo, and southwestern willow flycatcher. A discussion of NCCP/HCP covered and conditionally covered species follows.

**Arroyo Toad (Federally Endangered, Species of Special Concern, NCCP/HCP Conditionally Covered)**
The arroyo toad is a conditionally covered species and requires additional mitigation measures be satisfied under the NCCP/HCP. The on-site habitat for this species is marginal, and no arroyo toad were observed on-site during focused surveys conducted by MBA in 2008 and PCR in 2010. Therefore, no impacts to the arroyo toad would occur and no mitigation measures would be required.

**Burrowing Owl (Species of Special Concern)**
The burrowing owl is a Species of Special Concern. Focused surveys were conducted for this species by PCR in 2012, 2013, 2014, and ESA in 2017. No burrowing owls were observed during focused surveys and they are not expected to occur within the project site. Therefore, no impacts to the burrowing owl would occur and no mitigation measures would be required.

**Coastal California Gnatcatcher (Federally Threatened, NCCP/HCP Identified Species)**
The coastal California gnatcatcher is a covered species under the NCCP/HCP. No coastal California gnatcatcher were observed on-site during focused surveys conducted by MBA in 2008 and PCR in 2010, 2012, 2013, 2015, and ESA in 2017. However, during focused surveys conducted in 2014, a coastal California gnatcatcher pair was observed within the western portion of the project site on March 27, 2014. The pair did not appear to be engaged in any definite breeding-related activity and was not observed within the project site on subsequent surveys conducted during that season. However, what was believed to be the same pair was later observed off-site on May 2, 2014 on the west side of Cannon Street in a more extensive area of poor quality coastal sage scrub habitat.

In addition, an incidental sighting of one dispersing coastal California gnatcatcher was observed outside of the breeding season on August 3, 2010, and additional incidental sightings of two separate coastal California gnatcatcher individuals were observed on both June 9 and 27, 2017. The habitat where all of these incidental observations were seen was disturbed/non-native herbaceous cover or within disturbed areas perched on mule fat, and not coastal sage scrub. Because of the locations were these incidental sightings occurred, and since results of the focused breeding season surveys were negative in the years when each of these incidental sightings were made, it is believed these incidental sightings were likely juveniles dispersing through the project site from suitable habitat areas in the vicinity of the project site.

A number of coastal California gnatcatcher occurrences are documented in the USFWS occurrences database within the vicinity of the project site; these include 59 occurrences within a 1-mile radius. Thus, it is likely that the coastal California gnatcatchers observed on-site are foraging or dispersing through the project site from adjacent areas, particularly off-site areas downstream of the project site.
to the west. However, no breeding pairs were found within the project site during the 2008, 2010, 2012, 2013, 2014, 2015, or 2017 focused breeding season surveys. The coastal California gnatcatcher is a covered species with implementation of the NCCP/HCP, and although coastal California gnatcatcher individuals have been observed on-site (likely foraging or dispersing through the project site), no breeding pairs have been found within the project site during focused breeding season surveys, and regardless, the proposed project will not impact any coastal sage scrub habitats. Furthermore, the proposed project will avoid the majority of Santiago Creek and its associated native riparian and upland habitats. Approximately 38 acres of the project site will be avoided, including 14.06 acres of sensitive plant communities, which includes 0.57 acre of coastal sage scrub (100 percent of extant on-site habitat) and 12.60 acres of southern cottonwood-willow riparian forest, within and/or adjacent to Santiago Creek. Although the incidental sightings of coastal California gnatcatcher were in disturbed/non-native herbaceous cover or within disturbed areas perched on mule fat, and not coastal sage scrub, if these areas were used for foraging and/or dispersal, the areas of Santiago Creek and native habitats that will be avoided by the proposed project north of the drainage will continue to provide higher quality habitat (including coastal sage scrub dominated by California sagebrush), which provide resources for foraging and connectivity to other open space areas for dispersal (e.g., to Santiago Oaks Regional Park to the east). As such, no significant impacts will occur to the coastal California gnatcatcher and no mitigation measures would be required.

In addition, the project site is not within critical habitat for this species; the nearest final critical habitat for coastal California gnatcatcher is 0.3-mile south of the project site. Therefore, no impacts will occur to the coastal California gnatcatcher critical habitat and no mitigation measures would be required.

Prairie Falcon (Species of Special Concern, NCCP/HCP Conditionally Covered)
The prairie falcon is a conditionally covered species and requires additional mitigation measures be satisfied under the NCCP/HCP. However, this species is only expected to utilize the project site for foraging. It is not anticipated that direct impacts to nesting sites would occur because of the lack of suitable nesting habitat within the project site. No active nests or nesting habitat for prairie falcon were identified within the project site or within one-half mile of the project site. The project site is surrounded by residential development and no known suitable nesting habitat (i.e., sheltered ledge of a cliff, bluff, or rock outcrop) exists within a 0.5-mile radius of the project site. Therefore, impacts to the prairie falcon foraging habitat would be considered less than significant and no mitigation measures would be required.

Least Bell’s Vireo (Federally and State Endangered, NCCP/HCP Conditionally Covered)
The least Bell’s vireo is a conditionally covered species under the NCCP/HCP. The least Bell’s vireo was previously observed on-site by MBA in 2008, PCR in 2010, and ESA in 2017. The proposed project would impact habitat supporting the least Bell’s vireo. A total of 0.10 acre of permanent impacts will occur to an isolated patch of southern cottonwood-willow riparian forest on-site, and 0.04 acre of permanent impacts and 0.05 acre of temporary impacts will occur for the installation of an on-site storm drain outlet; refer to Exhibit 3.4-8.
Exhibit 3.4-8
Impacts to Special-Status Wildlife Species

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Nine project design features serve to avoid or minimize impacts on the least Bell's vireo, including:

- The proposed project will permanently retain approximately 38 acres of open space located on both sides of Santiago Creek and bordered on the north by Mabury Avenue.
- The majority of the southern cottonwood-willow riparian forest within the project site will be avoided (12.60 acres), with the exception of 0.10 acre of permanent impacts that will occur to an isolated patch of southern cottonwood-willow riparian forest on-site, 0.04 acre of permanent impact, and 0.05 acre of temporary impact from the installation of an on-site storm drain outlet.
- The proposed project will avoid the majority of Santiago Creek and its associated native riparian and upland habitats. Approximately 38 acres of the project site will be avoided, including 14.06 acres of sensitive plant communities, which includes 0.57 acre of coastal sage scrub, and 12.60 acres of southern cottonwood-willow riparian forest within and/or adjacent to Santiago Creek.
- The proposed project will provide a 150-foot limited use (landscaping and fuel modification) time sensitive (breeding season March 15 through September 15) setback area adjacent to the southern cottonwood-willow riparian forest within Santiago Creek, which provides habitat for the least Bell’s vireo.
- The proposed project will provide select landscaping, including native species, within the 150-foot limited use setback area (to the south of Santiago Creek) that is compatible with the adjacent open space area, its habitat, and is considerate of the fire protection (fuel modification) zone (refer to Exhibit 3.4-8).
- The proposed project establishes development standards in the Specific Plan to reduce sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals).
- Prior to building permit issuance, the proposed project will remove the existing fence on Orange County Flood Control District property.
- The proposed project will restrict grading and/or construction activities within the 150-foot limited use setback area during the least Bell’s vireo breeding season; refer to Exhibit 3.4-8.
- The proposed project will limit uses within the 150-foot limited use setback area to those as uses identified in the Specific Plan.

However, the least Bell's vireo is a conditionally covered species under the NCCP/HCP.19. Any potential impacts to the least Bell's vireo would be considered potentially significant. Mitigation Measures BIO-2a through BIO-2c are proposed to reduce impacts to a less than significant level.

**Southwestern Willow Flycatcher (Federally and State Endangered, NCCP/HCP Conditionally Covered)**

The southwestern willow flycatcher is a conditionally covered species and requires additional mitigation measures be satisfied under the NCCP/HCP. No southwestern willow flycatchers were observed on-site during focused surveys conducted by MBA in 2008 and PCR in 2010, 2012, 2013, 2014, and 2015, and ESA in 2017. Therefore, no impacts to the southwestern willow flycatcher would occur and no mitigation measures would be required.
Willow Flycatcher (State Endangered)
Willow flycatchers are listed as State Endangered and were observed during the 2012 survey. Two willow flycatchers were observed within the black willow scrub/ruderal community that borders the fallow field in the eastern portion of the project site. The habitat that these willow flycatchers were observed within is considered unsuitable as potential nesting habitat; therefore, it is assumed that both birds were migrants passing through the area, and are not the southwestern willow flycatcher subspecies. In addition, one willow flycatcher was observed within southern cottonwood-willow riparian forest within the north central portion of the project site. The habitat that this willow flycatcher was observed in is considered suitable for nesting; however, no breeding willow flycatchers were observed during the focused surveys. The proposed project would impact habitat suitable to support the willow flycatcher.

A total of 0.20 acre of permanent impacts will occur to non-native herbaceous cover/black willow scrub, and a total of 0.10 acre of permanent impacts will occur to an isolated patch of southern cottonwood-willow riparian forest on-site, as well as 0.04 acre of permanent impacts and 0.05 acre of temporary impacts will occur to southern cottonwood-willow riparian forest for the installation of an on-site storm drain outlet. However, because willow flycatchers are not expected to breed within the off-site area, no direct impacts would occur to this species and no mitigation measures would be required. Significant impacts to foraging habitat for this species are not anticipated, as discussed below.

Although the black willow scrub/ruderal will be permanently removed, this isolated stand of willows provides only a small, limited amount of foraging habitat for this species. The riparian habitat within Santiago Creek that will be avoided by the proposed project will still be available to provide a greater area of contiguous habitat for foraging opportunities.

For the southern cottonwood-willow riparian forest that will be impacted with the installation of a storm drain outlet, temporary impacts will be restored to pre-project conditions. The 0.10 acre of permanent impacts for an isolated patch of southern cottonwood willow riparian forest on-site, and 0.04 acre of permanent impacts where the on-site storm drain outlet will be installed will be mitigated for at an on- and/or off-site location. Additionally, the storm drain outlet structures are not expected to exclude continued use of the surrounding habitat for foraging should willow flycatcher occur within these areas.

Thus, impacts to potential willow flycatcher foraging habitat are not expected to threaten regional populations of this species and would be considered less than significant, and no mitigation measures would be required.

White-tailed Kite (Fully Protected)
White-tailed kite was observed within the on-site portion of the project site during 2008 surveys. In addition, this species has the potential to breed within the project site. Any potential impacts to the white-tailed kite would be considered potentially significant. Therefore, mitigation to avoid any nesting birds during the breeding season would be required in compliance with the California Fish and Game Code (Sections 3503.5 and 3511) and Migratory Bird Treaty Act (16 U.S.C. 703, et seq. [see Mitigation Measure BIO-2d]).
In addition, there are preliminary trails and their alignments for the specific plan that are conceptual in nature, and final design will be undertaken at some future date. As indicated previously, with the exception of Trail A (in Planning Area B paralleling East Santiago Canyon Road) and Trail E (in Planning Area B north of Planning Area C and with multiple uses as recreation trail, fuel modification maintenance, and emergency vehicle access) final trail design, alignment, and points of connectivity with existing and future adjacent trails will be accomplished through a collaborative effort involving the City of Orange, the Orange Park Acres Trail Committee, the Santiago Creek Greenway Alliance, Orange County Parks, and representatives of the Applicant. As outlined in the Preface of this document, approximately $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway will be funded as part of the proposed project. Said Improvements are to be completed or funded prior to the 60th Certificate of Occupancy.

In order to avoid or minimize trail impacts to sensitive biological resources, design features (as outlined on page 3.4-35 above) are recommended for incorporation prior to final design of the trails. With the adoption of the recommended design features, potentially significant impacts will be avoided or minimized.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM BIO-2a**

Prior to the issuance of any grading permit for areas supporting least Bell’s vireo habitat (such as southern cottonwood-willow riparian forest), the project Applicant shall obtain federal and state take authorizations via regulatory permits (such as a CWA Section 404 permit issued by the USACE), which will require that the USFWS be consulted as provided for by Section 7 of the FESA (for the federally listed least Bell’s vireo). The federal regulatory permits (such as CWA Section 404 permit issued by the USACE) provide a “federal nexus” by which Section 7 consultation can occur. This statute imposes the obligation on federal agencies to ensure that their actions (such as issuing federal CWA permits for this project) are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its designated critical habitat. This obligation is enforced through the procedural requirement that agencies such as the United States Army Corps of Engineers initiate consultation with the USFWS on any actions that may affect a threatened or endangered species. During the FESA Section 7 consultation anticipated for this project, the USFWS will gather all relevant information concerning the proposed project and the potential project-related impacts on the least Bell’s vireo (i.e., the project Applicant will submit a species-specific Biological Assessment), prepare its opinion with respect to whether the project is likely to jeopardize the continued existence of the species (i.e., the USFWS will issue a Biological Opinion), and recommend mitigation/conservation measures where appropriate. Additionally, the need for State regulatory permits (i.e., Fish and Game Code Section 1602 Streambed Alteration Agreement issued by the CDFW) will require a Consistency Determination from the CDFW for the State-listed least Bell’s vireo under CESA.
In addition, the following BMPs will ensure that indirect impacts will not occur to the least Bell’s vireo within 300 feet of occupied habitat as monitored by a certified biologist:

1. Construction limits in and around least Bell’s vireo potential habitat shall be delineated with flags and fencing prior to the initiation of any grading or construction activities.
2. Prior to grading and construction a training program shall be developed and implemented to inform all workers on the project about listed species, sensitive habitats, and the importance of complying with avoidance and minimization measures.
3. All construction work shall occur during the daylight hours. The construction contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours determined by the City of Orange.
4. During all excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers’ standards to reduce construction equipment noise to the maximum extent possible. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors (i.e., least Bell’s vireo territory within Santiago Creek) nearest the project site.
5. The construction contractor shall stage equipment in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the project site during all project construction.
6. Noise from construction activities shall be limited to the extent possible through the maximum use of technology available to reduce construction equipment noise. Project-generated noise, both during construction and after the development has been completed, shall be in compliance with the requirements outlined in the City of Orange General Plan Noise Element to ensure that noise levels to which the riparian area is exposed do not exceed noise standards for residential areas.
7. The project shall be designed to minimize exterior night lighting while remaining compliant with City of Orange ordinances related to street lighting. Any necessary lighting (e.g., to light up equipment for security measures), both during construction and after the development has been completed, will be shielded or directed away from Santiago Creek and are not to exceed 0.5 foot-candles. Monitoring by a qualified lighting engineer (attained by the project Applicant and subject to spot checking by City Staff) shall be conducted as needed to verify light levels are below 0.5 foot-candles required within identified, occupied least Bell’s vireo territories, both during construction and at the onset of operations. If the 0.5 foot-candles requirement is exceeded, the lighting engineer shall make operational changes or install a barrier to alleviate light levels during the breeding season.
8. Two brown-headed cowbird traps shall be installed and maintained within the general vicinity of the habitat for five years. If equestrian trails are proposed within...
the project site, which may result in increased horse manure and the potential for increased foraging resources for brown-headed cowbirds, an ongoing manure management receptacle/maintenance plan shall be prepared and implemented.

MM BIO-2b

The following shall be incorporated into the Biological Assessment as proposed mitigation for potential impacts to least Bell’s vireo, subject to USFWS and CDFW approval:

1. On- or off-site restoration or enhancement of least Bell’s vireo habitat at a ratio no less than 3:1 for permanent grading impacts.

MM BIO-2c

All construction, grading, and fuel modification activities (i.e., thinning) shall take place outside of the least Bell’s vireo breeding season (March 15 to September 15) to the greatest extent feasible. If any construction, grading, and fuel modification activities are required during the breeding season within 300 feet of potential least Bell’s vireo habitat, and pre-construction surveys determine least Bell’s vireo are present, activities may continue in the presence of a biological monitor who will confirm that no work will occur within a 300-foot buffer of least Bell’s vireo, and that any least Bell’s vireo are not being disturbed by project activities. If any disturbance to the least Bell’s vireo is detected by the biological monitor, the buffer will be increased, other disturbance minimizing measures may be implemented (e.g., visual and/or noise barrier), and/or work will cease as recommended by the monitor.

Additional measures to be taken for all construction activities within 300 feet of potential least Bell’s vireo habitat during the breeding season (March 15 to September 15):

1. Pre-construction surveys shall be conducted within 1 week prior to initiation of construction activities and all results forwarded to the USFWS and CDFW. Focused surveys shall be conducted for least Bell’s vireo during construction activities.
2. If at any time least Bell’s vireo are found to occur within 300 feet of construction areas, the monitoring biologist shall inform the appropriate construction supervisor to cease such work and shall consult with the USFWS and CDFW to determine if work shall commence or proceed during the breeding season and, if work may proceed, what specific measures shall be taken to ensure least Bell’s vireos are not affected.
3. Installation of any noise barriers and any other corrective actions taken to mitigate noise during the construction period shall be communicated to the USFWS and CDFW.

MM BIO-2d

Prior to the issuance of any grading permit that would remove habitats containing raptor and songbird nests, the project Applicant shall demonstrate to the satisfaction of the City that either of the following have been or will be accomplished.
1. Vegetation removal activities shall be scheduled outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds.

2. Any construction activities that occur during the nesting season (February 15 to August 31 for songbirds; January 15 to August 31 for raptors) will require that all suitable habitat be thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected, a buffer of at least 300 feet (500 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete, or as determined appropriate by the biological monitor, to minimize impacts.

**Level of Significance After Mitigation**

Less than significant impact.

**Sensitive Natural Communities**

**Impact BIO-3:** The project may impact sensitive natural communities.

**Impact Analysis**

Implementation of the proposed project would result in impacts to coast live oak woodland, mule fat scrub, open water, ornamental, eucalyptus woodland, non-native grassland/non-native herbaceous cover, non-native grassland/disturbed, non-native herbaceous cover, non-native herbaceous cover/black willow scrub, non-native herbaceous cover/mule fat scrub, non-native herbaceous cover/disturbed, disturbed/disturbed/arroyo willow scrub, disturbed/black willow scrub, disturbed/mule fat scrub, disturbed/non-native herbaceous cover, and developed, as summarized in Table 3.4-3. None of these natural communities represent sensitive natural communities (CDFW 2003) and their removal does not meet the significance thresholds defined previously. Therefore, impacts to these natural communities would be considered a less than significant impact and no mitigation measures would be required.

**Table 3.4-3: Impacts to Natural Communities**

<table>
<thead>
<tr>
<th>Natural Community</th>
<th>Existing Total</th>
<th>Permanent Impacts</th>
<th>Fuel Modification</th>
<th>Temporary Impacts</th>
<th>Avoided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Cottonwood—Willow Riparian Forest</td>
<td>12.79</td>
<td>0.14</td>
<td>—</td>
<td>0.05</td>
<td>12.60</td>
</tr>
<tr>
<td>Coastal Sage Scrub</td>
<td>0.57</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.57</td>
</tr>
<tr>
<td>Coastal Sage Scrub/Non-Native Herbaceous Cover</td>
<td>0.19</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.19</td>
</tr>
<tr>
<td>Coast Live Oak Woodland</td>
<td>0.33</td>
<td>0.33</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Blue Elderberry Scrub</td>
<td>0.13</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.13</td>
</tr>
<tr>
<td>California Brittlebush Scrub</td>
<td>0.26</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.26</td>
</tr>
</tbody>
</table>
Table 3.4-3 (cont.): Impacts to Natural Communities

<table>
<thead>
<tr>
<th>Natural Community</th>
<th>Existing Acres</th>
<th>Permanent Impacts</th>
<th>Fuel Modification</th>
<th>Temporary Impacts</th>
<th>Avoided Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel Sumac Scrub</td>
<td>0.38</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.38</td>
</tr>
<tr>
<td>Yerba Santa Scrub</td>
<td>0.31</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.31</td>
</tr>
<tr>
<td>Mule Fat Scrub</td>
<td>0.17</td>
<td>0.09</td>
<td>—</td>
<td>—</td>
<td>0.08</td>
</tr>
<tr>
<td>Open Water</td>
<td>0.66</td>
<td>0.66</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Giant Reed</td>
<td>0.44</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.44</td>
</tr>
<tr>
<td>Ornamental</td>
<td>0.49</td>
<td>0.13</td>
<td>0.04</td>
<td>—</td>
<td>0.32</td>
</tr>
<tr>
<td>Eucalyptus Woodland</td>
<td>0.43</td>
<td>0.43</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Non-Native Grassland/Non-Native Herbaceous Cover</td>
<td>25.47</td>
<td>13.06</td>
<td>0.30</td>
<td>—</td>
<td>12.11</td>
</tr>
<tr>
<td>Non-Native Grassland/Disturbed</td>
<td>3.89</td>
<td>3.75</td>
<td>—</td>
<td>0.03</td>
<td>0.11</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover</td>
<td>5.11</td>
<td>3.46</td>
<td>0.28</td>
<td>—</td>
<td>1.37</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Black Willow Scrub</td>
<td>0.20</td>
<td>0.20</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Coastal Sage Scrub</td>
<td>0.43</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.43</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Mule Fat Scrub</td>
<td>0.26</td>
<td>0.26</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Ornamental</td>
<td>7.05</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>7.05</td>
</tr>
<tr>
<td>Non-Native Herbaceous Cover/Disturbed</td>
<td>0.19</td>
<td>0.03</td>
<td>0.13</td>
<td>—</td>
<td>0.03</td>
</tr>
<tr>
<td>Disturbed</td>
<td>19.46</td>
<td>17.92</td>
<td>0.51</td>
<td>—</td>
<td>1.03</td>
</tr>
<tr>
<td>Disturbed/Arroyo Willow Scrub</td>
<td>0.11</td>
<td>0.11</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Disturbed/Black Willow Scrub</td>
<td>0.31</td>
<td>0.31</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Disturbed/Coastal Sage Scrub</td>
<td>0.30</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.30</td>
</tr>
<tr>
<td>Disturbed/Mule Fat Scrub</td>
<td>0.03</td>
<td>0.03</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Disturbed/Non-Native Herbaceous Cover</td>
<td>26.22</td>
<td>25.46</td>
<td>0.08</td>
<td>—</td>
<td>0.68</td>
</tr>
<tr>
<td>Developed</td>
<td>3.57</td>
<td>3.31</td>
<td>—</td>
<td>—</td>
<td>0.26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>109.75</strong></td>
<td><strong>69.68</strong></td>
<td><strong>1.34</strong></td>
<td><strong>0.08</strong></td>
<td><strong>38.65</strong></td>
</tr>
</tbody>
</table>


The project site supports 0.76 acre of coastal sage scrub (0.57 acre of coastal sage scrub, 0.19 acre of coastal sage scrub/non-native herbaceous cover). The project will avoid impacts to coastal sage...
scrub, which is a natural community covered under the NCCP; therefore, no impacts would occur to the coastal sage scrub community, as shown in Exhibit 3.4-9.

Four sensitive communities that are considered high priority for conservation by the CDFW List of California Terrestrial Natural Communities, include southern cottonwood-willow riparian forest (12.79 acres), blue elderberry scrub (0.13 acre), California brittlebush scrub (0.26 acre), and yerba santa scrub (0.31 acre). Blue elderberry scrub, California brittlebush scrub, and yerba santa scrub will be avoided by the project. The proposed project will impact southern cottonwood-willow riparian forest, including 0.10 acre on-site permanent impacts within the limits of grading, 0.04 acre permanent impacts, and 0.05 acre temporary impacts due to installation of an on-site storm drain outlet. Any impacts to sensitive communities (e.g., southern cottonwood-willow riparian forest) would be considered potentially significant. The measures outlined in Mitigation Measure BIO-3 would reduce impacts to a less than significant level.

In addition, there are preliminary trails and their alignments for the specific plan that are conceptual in nature, and final design will be undertaken at some future date. As indicated previously, with the exception of Trail A (in Planning Area B paralleling East Santiago Canyon Road) and Trail E (in Planning Area B north of Planning Area C and with multiple uses as recreation trail, fuel modification maintenance, and emergency vehicle access) final trail design, alignment and points of connectivity with existing and future adjacent trails will be accomplished through a collaborative effort involving the City of Orange, the Orange Park Acres Trail Committee, the Santiago Creek Greenway Alliance, Orange County Parks, and representatives of the Applicant. As outlined in the Preface of this document, approximately $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway will be funded, as part of the proposed project. Said Improvements are to be completed or funded prior to the 60th Certificate of Occupancy.

In order to avoid or minimize trail impacts to sensitive biological resources, design features (as outlined on page 3.4-35 above) are recommended for incorporation prior to final design of the trails. With the adoption of the recommended design features, potentially significant impacts will be avoided or minimized.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM BIO-3**

Prior to the issuance of any grading permit in the areas designated as sensitive riparian communities (e.g., southern cottonwood-willow riparian forest or black willow scrub/ruderal), the project Applicant shall demonstrate to the satisfaction of the City that either of the following have been or will be accomplished:

- On- or off-site restoration or enhancement of sensitive riparian communities (e.g., southern cottonwood-willow riparian forest) at a ratio no less than 1:1 for permanent impacts. Temporary impacts will be restored to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 1:1 may include the
purchase of mitigation credits at an agency-approved off-site mitigation bank (e.g.,
Soquel Canyon Mitigation Bank).

If mitigation is to occur on-site and/or off-site (i.e., not an in-lieu fee program), a
mitigation and monitoring plan shall be prepared. The plan shall focus on the
creation of equivalent habitats within disturbed habitat areas of the project site
and/or off-site. In addition, the plan shall provide details as to the implementation
of the plan, maintenance, and future monitoring. Mitigation for impacts to sensitive
riparian communities shall be accomplished by on- or off-site restoration and/or
enhancement (e.g., transplantation, seeding, and/or planting/staking of sensitive
riparian species; salvage/dispersal of duff and seed bank; removal of large stands of
giant reed within riparian areas).

**Level of Significance After Mitigation**

Less than significant impact.

**Wetlands**

| Impact BIO-4: | The proposed project may impact federally protected wetlands. |

**Impact Analysis**

The proposed project would result in impacts to approximately 170 linear feet (50 linear feet
permanent, 120 linear feet temporary) and 0.01 acre (0.01 acre permanent, and less than 0.01 acre
temporary) of USACE/RWQCB “waters of the United States”/“waters of the State,” of which less than
0.01 acre is wetland (permanent), as well as 0.07 acre (0.03 acre permanent, and 0.04 acre
temporary) of CDFW jurisdictional streambed and associated riparian habitat; refer to Exhibit 3.4-10.
Any potential impacts to jurisdictional waters are considered potentially significant. Implementation
of Mitigation Measure BIO-4 would reduce impacts to a less than significant level.

In addition, there are preliminary trails and their alignments for the specific plan that are conceptual in
nature, and final design will be undertaken at some future date. As indicated previously, with the
exception of Trail A (in Planning Area B paralleling East Santiago Canyon Road) and Trail E (in Planning
Area B north of Planning Area C and with multiple uses as recreation trail, fuel modification
maintenance, and emergency vehicle access) final trail design, alignment and points of connectivity
with existing and future adjacent trails will be accomplished through a collaborative effort involving the
City of Orange, the Orange Park Acres Trail Committee, the Santiago Creek Greenway Alliance, Orange
County Parks, and representatives of the Applicant. As outlined in the Preface of this document,
approximately $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway
will be funded, as part of the proposed project. Said Improvements are to be completed or funded
prior to the 60th Certificate of Occupancy.

In order to avoid or minimize trail impacts to sensitive biological resources, design features (as
outlined on page 3.4-35 above) are recommended for incorporation prior to final design of the
trails. With the adoption of the recommended design features, potentially significant impacts will
be avoided or minimized.
**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM BIO-4**

Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project Applicant shall obtain a CWA Section 404 permit from the USACE, a CWA Section 401 permit from the RWQCB, and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the CDFW. The following would be incorporated into the permitting, subject to approval by the regulatory agencies:

1. On- or off-site restoration or replacement of USACE/RWQCB jurisdictional waters of the United States/waters of the State at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., SAWA).

2. On- or off-site restoration or enhancement of CDFW jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank (e.g., Soquel Canyon Mitigation Bank).

**Level of Significance After Mitigation**

Less than significant impact.

**Fish and Wildlife Movement**

**Impact BIO-5:** The project would not interfere with fish or wildlife movement.

**Impact Analysis**

The Santiago Creek corridor supports live-in and movement habitat for species on a local scale and also likely functions to facilitate wildlife movement for a number of species on a regional scale. The proposed project was designed to avoid Santiago Creek and associated native habitat that is best suited to support local and regional wildlife movement along the creek to the maximum extent feasible.

The proposed project was designed to avoid Santiago Creek and associated native habitat that is best suited to support local and regional wildlife movement along the creek to the maximum extent feasible in the following ways:

- The proposed project will permanently retain approximately 38 acres of open space located on both sides of Santiago Creek and bordered on the north by Mabury Avenue.
Exhibit 3.4-9
Impacts to Sensitive Natural Communities

Exhibit 3.4-10
Impacts to Jurisdictional Features

The majority of the southern cottonwood-willow riparian forest within the project site will be avoided (i.e., 12.60 acres), with the exception of 0.10 acre of permanent impacts will occur to an isolated patch of southern cottonwood-willow riparian forest on-site, and 0.04 acre of permanent impact and 0.05 acre of temporary impact from the installation of an on-site storm drain outlet.

The proposed project will avoid the majority of Santiago Creek and its associated native riparian and upland habitats. Approximately 38 acres of the project site will be avoided, including 14.06 acres of sensitive plant communities, which includes 0.57 acre of coastal sage scrub and 12.60 acres of southern cottonwood-willow riparian forest, within and/or adjacent to Santiago Creek. A total of 0.04 acre of permanent impacts on-site and 0.05 acre of temporary impacts, which will be restored to pre-project conditions, will occur to southern cottonwood-willow riparian forest for the installation of a storm drain outlet.

The proposed project will provide a 150-foot limited use (landscaping and fuel modification) time sensitive (breeding season March 15 through September 15) setback area adjacent to the southern cottonwood-willow riparian forest within Santiago Creek, which provides habitat for the least Bell’s vireo.

The proposed project will provide select landscaping, including native species, within the 150-foot limited use setback area (to the south of Santiago Creek) that is compatible with the adjacent open space area, its habitat, and is considerate of the fire protection (fuel modification) zone (refer to Exhibit 3.4-8).

The proposed project establishes development standards in the Specific Plan to reduce sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals).

Prior to building permit issuance, the proposed project will remove the existing fence on Orange County Flood Control District property.

The proposed project will restrict grading and/or construction activities within the 150-foot limited use setback area during the least Bell’s vireo breeding season; refer to Exhibit 3.4-8.

The proposed project will limit uses within the 150-foot limited use setback area to those as uses identified in the Specific Plan.

Santiago Creek within the project site does not support fish passage because of downstream obstructions including the presence of Santiago Creek Recharge Basin.

In addition, the project is not anticipated to contribute to avian mortality due to bird strikes resulting from window glare from structures. Although the project site includes a portion of Santiago Creek that provides habitat for a number of wildlife species, including birds, there is already existing residential development surrounding the creek in all directions, including Mabury Ranch immediately adjacent to the north. The proposed project would include additional suburban residential development of comparable heights and architectural features to those existing within the neighboring communities. The project does not include high-rise urban buildings with large glass windows, an architectural design with a high ratio of bird strike when compared to suburban
residential development. In addition, lighting from the residential development would be compliant with City of Orange ordinances related to street lighting, and would be shielded away from Santiago Creek. Thus, light and glare impacts to birds would be less than significant with implementation of the proposed project design features.

Impacts would be less than significant.

In addition, there are preliminary trails and their alignments for the specific plan that are conceptual in nature, and final design will be undertaken at some future date. As indicated previously, with the exception of Trail A (in Planning Area B paralleling East Santiago Canyon Road) and Trail E (in Planning Area B north of Planning Area C and with multiple uses as recreation trail, fuel modification maintenance, and emergency vehicle access) final trail design, alignment and points of connectivity with existing and future adjacent trails will be accomplished through a collaborative effort involving the City of Orange, the Orange Park Acres Trail Committee, the Santiago Creek Greenway Alliance, Orange County Parks, and representatives of the Applicant. As outlined in the Preface of this document, approximately $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway will be funded, as part of the proposed project. Said improvements are to be completed or funded prior to the 60th Certificate of Occupancy.

In order to avoid or minimize trail impacts to sensitive biological resources, design features (as outlined on page 3.4-35 above) are recommended for incorporation prior to final design of the trails. With the adoption of the recommended design features, potentially significant impacts will be avoided or minimized.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Local Biological Ordinances and Policies**

**Impact BIO-6:** The project would not conflict with local biological ordinances or policies.

**Impact Analysis**
The project site contains 204 trees within the tree survey area (i.e., within the project development footprint). Exhibit 3.4-11 depicts impacts to regulated tree species. Of the 204 trees on-site that will be impacted within the 71.10-acre development footprint, nine trees are within the fuel modification beyond the limits of grading so may potentially be left in place but are subject to thinning, and two trees are within the 0.06-acre storm drain outlet footprint and one tree is within the 0.08-acre associated temporary 30-foot construction buffer.
Exhibit 3.4-11
Impacts to Regulated Trees

The Tree Preservation Ordinance requires applicants for subdivision maps or grading permits to identify the location of trees proposed for removal and affords City staff discretion in imposing conditions on tree removal activities and replanting. Removed trees would be conditioned on being replaced on-site at no less than a 1:1 ratio. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Conservation Plan Consistency**

<table>
<thead>
<tr>
<th>Impact BIO-7: The project would not conflict with any applicable habitat conservation plan or natural communities conservation plan</th>
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**Impact Analysis**

The project site is within the boundaries of the Orange County Central and Coastal Subregion NCCP/HCP. The NCCP/HCP has an objective of assembling a 38,000-acre preserve in Orange County consisting of the highest value biological habitat.

Within the project site, the Santiago Creek corridor and the upland areas north of the creek contain riparian habitat, which are considered to have high biological value. These areas are contemplated to be preserved as open space and, therefore, would be available for inclusion in the preserve. Additionally, the 4.2 acres proposed for residential development coincide with the surface mining areas and do not contain any significant biological habitat. For these reasons, no conflicts with the NCCP/HCP would occur. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
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3.5 - Cultural Resources

3.5.1 - Introduction

This section describes the existing cultural resources setting and potential effects from project implementation on the site and its surrounding area that are based on the Addendum to the Phase I Cultural Resources Assessment prepared by BCR Consulting, the Updated Native American Consultation for the Rio Santiago Specific Plan Project prepared by BCR Consulting, and the Phase I Cultural Resources Assessment and Paleontological Records Review prepared by Michael Brandman Associates. These reports are provided in Appendix H. In November and December of 2017, the archaeological and paleontological records searches were updated and a new pedestrian survey was conducted for the property. The results of these efforts are contained herein.

3.5.2 - Environmental Setting

Overview

The term “cultural resources” encompasses historic, archaeological, and paleontological resources, and burial sites. Below is a brief summary of each component:

- **Historic Resources:** Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State’s history and are generally less than 200 years old.

- **Archaeological Resources:** Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.

- **Paleontological Resources:** Paleontology is the study of plant and animal fossils.

- **Burial Sites:** Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

Cultural Setting

*Prehistory*

The ultimate purpose of establishing a cultural sequence is to allow for the meaningful comparison of material culture attributes on an intra- and inter-site basis, and to provide the basis for culture-model building. To this end, regional archaeologists generally follow Wallace’s Southern California Format (1955 and 1978) for discussing the prehistoric chronology for the project area. However, the established chronologies are often augmented or even abandoned. For example, Fagan (2003) does not use the traditional archaeological cultural sequences for his regional analysis, instead he described the stages as generalized models related to recent environmental change and socio-economic models, all associated with an ever-changing environment. Thusly, it should be noted that all of the presented cultural sequences are regularly challenged, as are the meanings of the individual frames of reference. Wallace’s prehistoric format is as follows:

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1 Michael Brandman Associates became part of FirstCarbon Solutions (FCS) in 2012; this section refers to Michael Brandman Associates (MBA) and FCS interchangeably.
• Early Period (before 6000 B.C.)
• Milling Stone (6000 to 3000 B.C.)
• Intermediate (3000 B.C. to A.D. 500)
• Late Prehistoric (A.D. 500 to A.D. 1769).

Wallace also argued (Wallace, in Heizer 1978) that the stages prior to 2000 B.C> in southern California could be assigned to:

• San Dieguito Period (Period I: 9000 to 6000 B.C.)
• Standard Millingstone Period (Period II: 6000 to 3000 B.C.)
• Modifies Millingstone Period (Period III: 3000 to 2000 B.C.)

Warren (1968) uses the following terms to subdivide the periods:

• San Dieguito Tradition (Before 5500 B.C.)
• Encinitas Tradition (5500 B.C. to A.D. 600)
• Shoshonean Tradition (A.D. 600 to A.D. 1769)

The Late Period has been further subdivided into the San Luis Rey I (A.D. 500 to A.D. 1500) and the San Luis Rey II (post 1500). The difference between the latter two is the introduction of locally made brownware pottery, the first indigenous pottery in southern California (Cameron 1999).

**Early Period (before 6000 B.C.)**

Beginning with the first human presence in California, prehistoric artifacts and cultural activities appear to represent a big-game hunting tradition. Very few sites from the Early Period exist, especially in inland areas. Of the Early Period sites that have been excavated and dated, most exhibit a refuse assemblage suggesting short-term occupation. Such sites have been detected in caves and around fluvial lakes fed by streams that existed near the end of the last glaciation. Chipped stone tools at these sites are surmised to reflect a specialized tool kit used by hunters. Large-stemmed bifaces are common. Millingstones and dart points are not part of the Early Period tool assemblage.

**Millingstone Period (6000 to 3000 B.C.)**

The onset of the Millingstone Period appears to correspond with an interval of warm and dry weather known as the Altithermal (Wallace 1978). Artifact assemblages begin to reflect an emphasis on plant foods and foraging subsistence systems, as evidenced by the grinding tools found at these sites, and including choppers and scraper planes. Notably, there is a reduced number of large bifaces in the excavated assemblages. Sites are occupied for a greater duration than Early Period sites, based on an increase in occupational debris. Although numerous Millingstone sites have been identified in Orange County, few are actually dated. The best understood of these is CA-ORA-64, which has been radiometrically dated to about 6000 B.C. (Breece et al. 1988 and 1989). Excavations at this site located near Newport Bay, have been essential to the formulation of local research models (Koerper 1981). Research at this site suggests a settlement-subsistence system during the Millingstone Period reflecting a semi-sedentary lifestyle. The regional distribution of Millingstone sites reflects the theory that aboriginal groups may have followed a modified central-based wandering settlement pattern. Under this model, large groups would have occupied a base camp for
a portion of the year, with smaller bands occupying subsidiary camps in order to exploit resources not generally available near the base camp. Sedentism apparently increased in areas possessing an abundance of resources that were available for longer periods. Arid inland regions would have provided a seasonally and spatially dispersed resource base, restricting sedentary occupation, compared to the coastal areas. Generally, the Millingstone assemblage in the Los Angeles basin is typified by large and heavy deep-basin metates, wedge-shaped manos and large choppers and scrapers. Flaked lithic tools are slightly larger and cruder than in later periods, and cogstones begin to appear.

**Intermediate Period (3000 B.C. to A.D. 500)**

Dating between roughly 3000 B.C. and A.D. 500, the Intermediate Period represents a slow technological transition, which is presumably related to the slowly drying and warming climate. Site artifact assemblages retain many attributes of the Millingstone Period. Technologically speaking, these sites are difficult to distinguish from earlier sites in the absence of radiometric dates.

Additionally, these sites generally contain a reduced number of large-stemmed or notched projectile points but with an increase in portable mortars and pestles. The lack of large points combined with the mortars and pestles suggest that the indigenous populations may have preferred harvesting, processing, and consuming acorns and other seeds over hunting. Due to a general lack of data, neither the settlement and subsistence systems nor the cultural evolution of this period are well understood. It has been proposed by some researchers that group sedentarism increased with the exploitation of storable, high-yield plant food resources such as acorns. The duration and intensity of occupation at base camps increased during this period, especially in the later part of the period.

Generally, the Intermediate Period artifact assemblage in the Los Angeles basin is vague, including elements of the Late Prehistoric Period and Millingstone Period, such as heavy grinding implements.

A higher percentage of projectile points occur and smaller chipped stone tools are used.

**Late Prehistoric Period (A.D. 500 to A.D. 1769)**

Extending from about A.D. 500 to Spanish contact in A.D. 1769, the Late Prehistoric Period reflects an increased sophistication and diversity in technology. Village sites are common. Late assemblages characteristically contain small projectile or dart points, which imply the use of the bow and arrow.

In addition, assemblages include steatite bowls, asphaltum artifacts, grave goods, and elaborate shell ornaments. Use of bedrock milling stations is purported to have been widespread during this period, as it was in the previous period. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Pottery, previously traded into the area, is made locally during the latest stage of this Period and is of simple construction technology. Cameron (1999) names several village sites in inland Orange County that are located within Gabrieliño territory. These exhibited pottery, which suggests that the pre-contact Gabrieliño may have used pottery as a part of their lifestyle. One of these Late Prehistoric Period sites, Tomato Springs (CA-ORA-244), has been the subject of numerous excavations (Cottrell 1985) that have continued into the 21st century.
Native American Background

The project area is situated within an area that has been ethnographically mapped as the Gabrieliño traditional use area. The Gabrieliño tribal territory is mapped as extending north from Aliso Creek to just beyond the Topanga Canyon along the Pacific Coast, and inland to the City of San Bernardino (Bean and Smith 1978). Their territory would have included portions of the Santa Ana River, and several islands, and diffusion of ideas between neighboring groups, such as the Juaneño to the south.

The Gabrieliño

Kroeber (1925) and Bean and Smith (1978) form the primary historical references for this tribal group. The arrival of Spanish explorers and the establishment of missions and outposts during the eighteenth century ended the prehistoric period in California. At this time, traditional Gabrieliño society began to fragment as a result of foreign diseases and the mass removal of local Indian groups to the Mission San Gabriel and Mission San Juan Capistrano. The Gabrieliño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family (a language family that includes the Shoshonean groups of the Great Basin). The total Gabrieliño population in about 1770 AD was roughly 5,000 persons, based on an estimate of 100 small villages, with approximately 50 to 200 people per village. Their range is generally thought to have been located along the Pacific coast from Malibu to San Pedro Bay, south to Aliso Creek, then east to Temescal Canyon, then north to the headwaters of the San Gabriel River. Also included were several islands, including Catalina. This large area encompasses the City of Los Angeles, much of Rancho Cucamonga, Corona, Glendale, and Long Beach. By 1800, most traditional Gabriéliños had either been killed, or subjugated by the Spanish. The first modern social analyses of Gabrieliño culture took place in the early part of the twentieth century (Kroeber 1925). By this time, acculturation and disease had devastated this group, and the population studied was a remnant of their pre-contact form. Nonetheless, the early ethnographers viewed the Gabrieliño as a chief-oriented society of semi-sedentary hunter-gatherers. Influenced by coastal and interior environmental settings, their material culture was quite elaborate and consisted of well-made wood, bone, stone, and shell items. Included among these was a hunting stick made to bring down numerous types of game. Located in an area of extreme environmental diversity, large villages may have been permanent, such as that found on or near Red Hill in Rancho Cucamonga, with satellite villages utilized seasonally. Their living structures were large, domed, and circular thatched rooms that may have housed multiple families. The society exhibited ranked individuals, possibly chiefs, who possessed a much higher level of economic power than unranked persons.

Historic Background

City of Orange

The earliest European explorers to enter the Alta California region were the Spanish who navigated along the Pacific coast during the 17th and 18th centuries. During the latter portion of the 18th century, the Spanish sent Father Junipero Serra to Alta California to create a chain of Missions and Mission outposts to bring Christianity to the indigenous population, and create a foundation for colonization of the region. Between 1769 and 1823, Spanish explorers and missionaries established 21 missions, four presidios, and four pueblos between San Diego and Sonoma. Also during this period, American explorations occurred when trappers traveled west in search of abundant sea otter and beaver pelts. In 1805, when Lewis and Clark crossed the Rocky Mountains and continued on to the Pacific coast, they reported that the area was richer in beaver and otter than any other country...
on earth. The fur trappers were close behind the explorers, and by 1840, the beaver was over-exploited and was no longer worth hunting (Bean and Rawls 1983).

By the early decades of the 19th century, the Missions began establishing ranchos for the purpose of expanding their agricultural holdings. According to the history provided on the City of Orange website, the first landowner in this area was a retired Spanish soldier named Juan Pablo Grijalva. Grijalva was granted permission to ranch “the place of the Arroyo de Santiago” by the Spanish colonial government in 1801. This land ran from the Santa Ana River and the foothills above Villa Park, to the sea at Newport Beach. Though Grijalva lived in San Diego, he built an adobe ranch house on what is now Hoyt Hill, at the corner of Hewes and Santiago Canyon Road (City of Orange History 2008).

Following Grijalva’s death, the rancho was taken over by his son-in-law, Jose Antonio Yorba, and grandson, Juan Pablo Peralta. These lands then became known as the Rancho Santiago de Santa Ana, and were granted to Yorba and Peralta on July 1, 1810. This 75,000-acre grant was made by Governor Arrellaga, and encompassed the majority of the Santa Ana Canyon of eastern Orange County, as well as much of northern Orange County and Newport Bay (Lech 2004). The children and grandchildren of Yorba and Peralta moved to various parts of the sizable rancho, and through time, the descendants absorbed additional acreage. The family holdings eventually encompassed lands extending from Riverside to the ocean.

In the early 1860s, Leonardo Cota, an extended family member, borrowed money from the largest landowner in southern California. Abel Stearns lent Cota money, and held his share of the Rancho as collateral. When Cota defaulted on his loan in 1866, Stearns filed a lawsuit in the Los Angeles Superior Court to demand a partition of the land, in order to claim Cota’s section. It took two years to determine how much land was due to each family member, and the rancho was then divided into 1,000 units for the heirs and the claimants in the lawsuit (City of Orange 2008).

The Los Angeles attorneys involved in the lawsuit, Alfred Chapman and Andrew Glassell, received a portion of the Rancho Santiago de Santa Ana as payment for their services. They quickly subdivided their land into a 1-square-mile town, with surrounding 10-acre farm lots. This community was named Richland until 1873, when the town’s application for a post office was denied due to the existence of another Richland in Sacramento County. According to local legend, Richland was renamed Orange after a poker game where Glassell, Chapman, and two other men allowed the winner to decide the new town name. Though the winner is not recorded, Richland was named Orange in January of 1875.

By 1873 Richland/Orange was beginning to grow by opening the first local store, named Fisher Brothers, a civic organization, called the Orange Grange, and the first church, which was of the Methodist Episcopal denomination. This was also the year that local farmers began planting orange groves in the area. The area then continued to grow when the Southern Pacific Railroad built a depot in Orange, in 1880, and again with the arrival of the Santa Fe railroad in 1887.

During the land boom of the 1880s, Orange attracted many travelers, founded local newspapers, build a public library, a bank and incorporation occurred on April 6, 1888. When the boom ended,
local farmers continued to plant orange trees. By 1929, Orange County produced more than $12 million from the sale of oranges. However, with the depression and inclement weather in the 1930s, the industry fell into economic decline (City of Orange 2008).

By the 1950s, a second real estate boom occurred, and large tracts of houses were constructed into the 1970s. Thereafter the City of Orange continued to grow at a steady pace, and development is still occurring, especially at the eastern edge of the city.

**Historic Era Aerial Photograph**

FCS (formerly MBA) additionally conducted a historic era aerial photograph review, from an image taken from the National Imagery Program for Orange County. This photograph was taken on December 12, 1952. During the historic era, the project area was part of an extensive sand and gravel mining operation, which began in approximately 1952 (LSA 1992). This process removed sand and gravel from alluvial deposits, and then processed the sediments in an open area located to the south of Santiago Creek. Evidence of the surface mining activity is observable in this photograph in the central portion of the project area, to the south of Santiago Creek. In this area, there is an absence of vegetation, multiple piles of soil, and numerous dirt tracks and/or unimproved access roads. Santiago Creek borders the surface mining area to the north, and numerous citrus groves are found to the southeast, south, and southwest along Santiago Canyon Road. In the southwestern corner of the project area, to the north of Santiago Canyon Road, and at the southern terminus of a windrow of eucalyptus trees is a clearing with apparent structures. These structures are situated between citrus groves, and appear to coincide with the location of a concrete foundation and an asphalt and concrete lot recorded during the pedestrian survey as Site 001. Additional citrus groves are found within the project area boundaries, to the north of Santiago Creek. These citrus groves appear to cover the recorded location of prehistoric-age site CA-ORA-369, which was detected during the cultural resources literature search at the South Central Coastal Information Center (SCCIC).

### 3.5.3 - Regulatory Framework

**Federal**

**National Historic Preservation Act**

The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NR), which contains an inventory of the nation’s significant prehistoric and historic properties. Under 36 CFR 60, a property is recommended for possible inclusion on the NR if it is at least 50 years old, has integrity, and meets one of the following criteria:

- It is associated with significant events in history, or broad patterns of events.
- It is associated with significant people in the past.
- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.
Certain types of properties are usually excluded from consideration for listing in the NR, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

**State**

**Senate Bill 18**

California Senate Bill (SB) 18 states that prior to a local (city or county) government’s adoption of any general plan or specific plan, or amendment to general and specific plans, or a designation of open space land proposed on or after March 1, 2005, the city or county shall conduct consultations with California Native American tribes for the purpose of preserving or mitigating impacts to Cultural Places. A Cultural Place is defined as:

- Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (PRC Section 5097.9), or;
- Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, or any archaeological or historic site (PRC Section 5097.995).

According to the Government Code (GC) Section 65352.4, “consultation” is defined as:

The meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties’ cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American Tribes shall be conducted in a way that is mutually respectful of each party’s sovereignty. Consultation shall also recognize the tribes’ potential needs for confidentiality with respect to places that have traditional tribal cultural significance.

While consultation is required to take place on a government-to-government level, the SB 18 process begins with a letter from the local government to the Native American Heritage Commission requesting a list of tribal organizations appropriate to the plan or plan amendment area or proposed open space designation. Once contacted by the local government, the tribes have up to 90 days to respond and request consultation regarding the preservation and treatment of known cultural place(s), if any have been identified by the tribe.

**California Assembly Bill 52**

Assembly Bill 52 (AB 52) was signed into law on September 25, 2014, and provides that any public or private “project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” Tribal cultural resources include “[s]ites, features, places, cultural landscapes, sacred places, and objects
with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources.”

This law applies to any project that has a notice of preparation, a notice of negative declaration, or mitigated negative declaration filed on or after July 1, 2015. Under prior law, tribal cultural resources were typically addressed under the umbrella of “cultural resources,” as discussed above. AB 52 formally added the category of “tribal cultural resources” to CEQA, and extends the consultation and confidentiality requirements to all projects, rather than just projects subject to SB 18 as discussed above.

The parties must consult in good faith, and consultation is deemed concluded when either (1) the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource (if such a significant effect exists); or (2) when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed upon during consultation must be recommended for inclusion in the environmental document. AB 52 also identifies mitigation measures that may be considered to avoid significant impacts if there is no agreement on appropriate mitigation. Recommended measures include:

- Preservation in place
- Protecting the cultural character and integrity of the resource
- Protecting the traditional use of the resource
- Protecting the confidentiality of the resource
- Permanent conservation easements with culturally appropriate management criteria

**California Register of Historical Resources**

As defined by Section 15064.5(a)(3)(A-D) of the CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (CR). The California Register of Historical Resources and many local preservation ordinances have employed the criteria for eligibility to the NR as a model, since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets the NR criteria is clearly significant. In addition, a resource that does not meet the NR standards may still be considered historically significant at a local or state level.

**California Environmental Quality Act**

The CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. The CEQA guidelines direct lead agencies to evaluate archaeological sites to determine if they meet the criteria for listing in the California Register. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the California Register, potential adverse impacts to it must be considered. If an archaeological site is considered not to be an historical resource but meets the definition of a “unique archeological resource” as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.
Local

**City of Orange**

**General Plan**

**Cultural Resources and Historic Preservation Element**

- **Goal 1.0**: Identify and preserve potential and listed historic resources, including buildings, structures, objects, sites, districts, and archaeological resources citywide.

- **Policy 1.3**: Provide long term assurance that potential and listed historic resources will be used, maintained, and rehabilitated in conformance with Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Preserving Historic Buildings (Secretary’s Standards).

- **Policy 1.4**: Encourage alternatives to demolition such as architecturally-compatible rehabilitation, adaptive re-use, new construction, and relocation.

- **Goal 2.0**: Identify and preserve neighborhoods that are culturally and historically significant but do not retain sufficient integrity for eligibility as a local, state, or national district.

- **Policy 4.1**: Identify, designate, and protect historically and culturally significant archaeological resources or sites.

- **Policy 4.2**: Recognize the importance of Santiago Creek as an archaeological resource.

- **Policy 4.5**: Encourage private development to celebrate the cultural history of the community through project design.

**Cultural Resources and Historic Preservation Plan**

The City of Orange has traditionally focused its historic preservation efforts primarily on Old Towne. Since 1982, when the City of Orange undertook its first historic resources survey, enacted its first historic preservation element, and established the Old Towne Historic District through a zoning overlay, historic preservation has been a significant factor in the revitalization and economic vitality of Orange’s historic downtown. The current process of establishing an historic district is through a zoning overlay as outlined in the Zoning Ordinance; the City does not have a Historic Preservation Ordinance. By combining historic district designation with design standards, design review, and preservation incentives, the historic character of Old Towne has been maintained and preserved. As part of this effort, the City has developed public programs that provide city residents with a variety of informational tools advertising different options for historic preservation. The City actively promotes the Old Towne Design Standards, educates the public regarding architectural styles found in Old Towne, and provides public information on the Mills Act program, which provides incentives that may reduce property taxes on historic buildings in exchange for rehabilitation and maintenance of the owner’s historic resource. City Hall makes all of this information available, in addition to preservation maps and brochures, and city staff include experts who work on historic preservation projects throughout the City. A Design Review Committee reviews building projects throughout Old Towne.

**3.5.4 - Methodology**

Three technical studies have been previously prepared for the project site: (1) Phase I Cultural Resources Assessment and Paleontological Records Review prepared by Michael Brandman Associates; (2) Addendum to the Phase I Cultural Resources Assessment prepared by BCR Consulting;
and (3) the Updated Native American Consultation for the Rio Santiago Specific Plan Project prepared by BCR Consulting. Each report is discussed separately. These reports are provided in Appendix H.

**Phase I Cultural Resources Assessment and Paleontological Records Review**

Michael Brandman Associates prepared a Phase I Cultural Resources Assessment and Paleontological Records Review, dated December 3, 2008. Subsequently, on November 28, 2017, the records search was updated by an FCS archaeologist. An updated paleontological records search was ordered on November 21, 2017.

**Record Search**

*Information Center Search*

On October 7, 2008, FCS Project Archaeologist Jennifer M. Sanka conducted a records search at the SCCIC, which is located at California State University, Fullerton. To identify any historical or archaeological resources or historic properties, Ms. Sanka examined the current inventories of the NR, CR, California Historical Landmarks (CHL) list, and California Points of Historical Interest (CPHI). In addition, Ms. Sanka reviewed the HRI and archival maps for the County and the City to determine the existence of previously documented local historical resources.

Review of the 1896 United States Geological Survey (USGS) Anaheim, CA 30-minute and the 1902 (reprinted 1946) 30-minute Corona, Calif. Quadrangle maps revealed neither structures nor any other development within the project area boundaries. Both maps depict Santiago Canyon Road in its present location as an unnamed road, and both maps show a moderate amount of development associated with areas labeled Villa Park, El Modena and Orange to the west. The mountainous lands to the east are comparatively undeveloped. The 1942 USGS Anaheim, Calif. 15-minute Quadrangle map shows four structures along Santiago Canyon Road, alongside the southern project area boundary. Four additional structures are depicted in the southeastern corner of the project area, adjacent to a hammer and pick symbol. At this time, the lands to the west show an increased amount of development in comparison to earlier maps, and the lands to the east remain minimally developed.

According to SCCIC files, the majority of the project area has been previously surveyed, and portions exhibit numerous archaeological studies. A linear study was conducted along Santiago Canyon Road, and this extended across the majority of the southern project area boundary (ARMC 1999). This study returned negative results for cultural resources near the project area. Two studies have been conducted that assessed Santiago Creek (Drover 1976 and ECOS 1985). The ECOS (1985) testing program did not address any resources within the project area, while Drover (1976) detected one resource in the project area (CA-ORA-369). McKenna et al. assessed a similar project area to the present project area in 1999 (McKenna et al. 2000). The McKenna et al. project area appears to have excluded a negligible amount of project acreage in the westernmost and eastern-most extensions of the project area, based upon mapped location at the SCCIC and within their report. This study discussed the existence of previously recorded resource CA-ORA-369 in the northern portion of the project area, and that this resource could not be relocated in 1999. The study returned negative results for cultural resources within their project area.
Previously recorded resource CA-ORA-369 has been the subject of several studies and was mentioned in numerous reports. Drover (1976) located numerous shell fragments at the recorded site location, and found the site to be a minimal deposit with no interpretive use. APC (1979) collected surface artifacts and tested the resource for subsurface deposits. This study found that CA-ORA-369 did not exhibit sufficient depth, midden deposits or interpretive data to warrant additional studies. LSA (1994) and McKenna et al. (2000) could not relocate CA-ORA-369. Including all of the aforementioned studies, a total of 36 studies have been conducted within a 1-mile radius. Despite the high number of studies conducted, less than 50 percent of the acreage within the search radius has been assessed for cultural resources. A majority of the unexamined areas are urbanized, and were presumably developed prior to the more stringent cultural resource assessment requirements that currently exist.

In addition, the SCCIC records search indicated that there is one previously recorded prehistoric-age resource mapped within the project area boundaries, and one resource mapped adjacent to the easternmost portion of the project area. CA-ORA-1172 is a prehistoric-age artifact scatter mapped by the SCCIC as potentially extending into the eastern portion of the project area. However, the DPR 523 Form and the corresponding report map the resource on a knoll to the southeast of the project area boundaries (Hatheway and McKenna 1988). Thus, it does not appear that this site should extend into the present project area, and no artifacts were observed near the eastern-most portion during the pedestrian survey. CA-ORA-369 is mapped in the northeastern portion of the project area, and this site has been tested for subsurface deposits (APC 1979). Including these resources, there are eleven cultural resources known within the 1-mile search radius, including eight prehistoric-age and three historic-age resources. Two of the historic-age resources are NR listed properties, and these are located more than 0.25 mile from the project area. The following table outlines these previously recorded resources, as found in the 1-mile search radius on the Orange, California topographic quadrangle.

An updated records search was conducted at the South Central Coastal Information Center on November 28, 2017. The results of the records search indicate that there have been at least 5 additional cultural resources investigations conducted within a 1-mile radius of the project area since the 2008 study. Of those, none included any portion of the property. As noted in the 2008 study, eight prehistoric archaeological sites have been recorded within a 1-mile radius of the property. One of those, CA-ORA-369, was recorded on the property south of Maybury Street. The other, CA-ORA-1172, is recorded immediately adjacent to the southeast corner of the property, presumably outside the property boundary. None of the remaining six are located on or within 0.5 mile of the subject property. Three historic homes are recorded within 1 mile of the project area, but none are on the project area.

In summary, the results of the updated records search show that no new archaeological investigations have been conducted on the property since 2008, and no new archaeological sites have been recorded on or within a 1-mile radius of the property.

CA-ORA-369 was thoroughly studied in 1979 and found to yield insufficient depth, midden deposits, or other interpretive data to warrant further investigation. Subsequently, two archaeological surveys in 1994 and 2000 failed to locate any remains of the site. The 2008 investigation also failed to locate
the site; however, given the dense vegetation, it was concluded that the site could be obscured, buried, or otherwise concealed from view and monitoring was recommended.

The 2008 investigation recorded an old concrete foundation and adjacent asphalt and gravel lot. The site was not indicated on the topographic records search map at the SCCIC, and no record of the site is on file with SCCIC. This is likely the fenced lot access via Jamestown off of Santiago. However, at the time of its recordation, it was deemed insignificant and no further work was recommended.

Table 3.5-1: Previously Recorded Cultural Resources

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Type</th>
<th>Distance From Project Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-179872</td>
<td>Historic age—A single-family craftsman-style residence built in ca. 1940. This structure was found not significant under CEQA through evaluation by the recorder.</td>
<td>&lt; 1 mile</td>
</tr>
<tr>
<td>CA-ORA-1017</td>
<td>Prehistoric age—Artifact scatter consisting of flakes, hammerstones, a chopper, a metate and a core.</td>
<td>&lt; 1 mile</td>
</tr>
<tr>
<td>CA-ORA-1018</td>
<td>Prehistoric age—Artifact scatter consisting of manos, metates, a hammerstone and a possible stone ball.</td>
<td>&lt; 1 mile</td>
</tr>
<tr>
<td>CA-ORA-1019</td>
<td>Prehistoric age—Artifact scatter consisting of manos, metates, hammerstones, flakes and a core.</td>
<td>&lt; 1 mile</td>
</tr>
<tr>
<td>CA-ORA-1020</td>
<td>Prehistoric age—Lithic scatter containing approximately 10 to 15 flakes.</td>
<td>&lt; 1 mile</td>
</tr>
<tr>
<td>CA-ORA-1273</td>
<td>Prehistoric age—Artifact scatter and a rock ring. Noted artifacts include mano fragments, metate fragments, cores and flakes. Site was excavated in 1991.</td>
<td>&lt; 0.5 mile</td>
</tr>
<tr>
<td>CA-ORA-1172</td>
<td>Prehistoric age—Artifact scatter consisting of flakes, hammerstones, manos, metate and a “donut stone.”</td>
<td>&lt; 0.25 mile</td>
</tr>
<tr>
<td>CA-ORA-369</td>
<td>Prehistoric age—Artifact scatter consisting of cores, shells and flakes.</td>
<td>Adjacent to northern boundary of project site</td>
</tr>
<tr>
<td>CA-ORA-702</td>
<td>Prehistoric age—A scraper, a mano and a chopper found at the surface with indication of subsurface component.</td>
<td>&lt; 0.5 mile</td>
</tr>
<tr>
<td>30-176770/NR-02001725</td>
<td>Historic age—NRHP listed property (Historic Property)—Villa Park School.</td>
<td>&lt; 1 mile</td>
</tr>
<tr>
<td>30-160083/NR-83001212</td>
<td>Historic age—NRHP listed property (Historic Property)—Smith and Clark Brothers Ranch.</td>
<td>&lt; 0.5 mile</td>
</tr>
</tbody>
</table>

Source: South Central Coastal Information Center, 2008.

Native American Heritage Commission Record Search

On October 6, 2008, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed in their Sacred Lands File for this portion of the City of Orange. Our efforts were associated with CEQA-level information scoping only. The response from the NAHC was received on October
10, 2008. To ensure that all potential Native American resources are adequately addressed, letters to each of the 12 listed tribal contacts were sent on November 3, 2008. FCS received an emailed response from John Tommy Rosas, the Tribal Administrator for the Tongva Ancestral Territorial Tribal Nation on November 3, 2008. Mr. Rosas indicated that the Tribe objected to the project, and that development in that area violated their indigenous rights. He cited the project location along Santiago Creek as an especially sensitive issue. Further, he noted the need for additional consultation efforts as required by law, including Section 106 of the NHPA and SB 18. He also requested additional information on the proposed project. FCS Project Archaeologist Jennifer M. Sanka replied to this email, providing additional information on the Conceptual Development Plan and asking for any information that could be included in the Cultural Resources Assessment regarding the sanctity of Santiago Creek. This information was requested, as FCS was aware that Santiago Creek and adjacent environs would be considered a culturally sensitive area to local Tribes. This assumption is based upon the presence of numerous prehistoric-age sites along the Creek and a known reliance on its resources by the indigenous people as outlined in ethnographic studies.

**Paleontological Records Search**

The paleontological records check was requested on October 6, 2008. A response was received on October 31, 2008 from Dr. Samuel McLeod of the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County. The paleontological review indicated that the lowest lying portions of the Santiago Creek drainage consist of younger Quaternary alluvium, while the majority of the surrounding acreage has surficial deposits of older Quaternary terrace sediments. The exception is an area found on the north side of Santiago Creek that has exposures of undifferentiated deposits of the Oligo-Miocene Sespe/Vaqueros Formations. These exposures have marine and non-marine components (McLeod 2008).

Younger Quaternary alluvial deposits do not typically contain fossil resources, and no localities are known from such deposits or similar deposits nearby. In contrast, localities are known within the City of Orange from older Quaternary deposits at depth, and numerous localities are known within the general vicinity, as well as within the project area from the Sespe/Vaqueros Formations. The nearest locality from older Quaternary deposits is LACM 4943. This locality is recorded between State Route 55 and the Santa Ana River, near the intersection of Glassell Street and Fletcher Avenue. This locality yielded the fossilized remains of a horse (Equus) at depths of about 8 to 10 feet from the modern ground surface. LACM 5449 is recorded in the northeastern portion of the project area from exposures of the Sespe/Vaqueros Formations. This locality yielded the fossilized remains of an undetermined carnivore (Carnivora) and camel (Camelidae). LACM 5450, 5451, and 6927 to 6930 are all known from the Sespe/Vaqueros Formations, and are found near the project area boundaries. These localities have produced the fossil remains of an undetermined camel, skunk, rabbit, horse, peccary, and oreodont. The presence of one locality within the project area and numerous localities in the vicinity from sediments similar to those found within the project area aptly demonstrate the fossil bearing potential of these sediments.

An updated paleontological records search was requested on November 21, 2017.
Pedestrian Survey

FCS Project Archaeologist Jennifer M. Sanka, MA and FCS Senior Archaeologist Michael H. Dice, MA surveyed the project area on October 9, 2008. The site was examined using a block transect technique, with 10- to 15-meter spacing, where appropriate. Transect size was increased to the north of Santiago Creek, in the westernmost portion and in the southwestern project corner because of the presence of thicker ruderal vegetation, which resulted in lower accessibility and negligible surface visibility. Santiago Creek could not be surveyed because of the presence of water and thick vegetation; however, the sides of the bluffs were visually scrutinized in areas exhibiting visibility. The southeastern corner of the project area was not surveyed because of active concrete recycling activities. Transect size was decreased to about 5 meter spacing near the recorded location of CA-ORA-369.

The majority of the project area consists of previously disturbed soils that have been subject to historic era sand and gravel mining operations, as well as processing activities. Santiago Creek trends east-west through the northern portion of the project area, and the remains of a concrete bridge are found in the central portion, crossing the Creek. An active concrete recycling plant is located in the southeastern corner, and several abandoned concrete pads and metal tanks are located directly north of this area. Additional concrete pads and asphalt surfaces are surrounded by a chain-link fence within the southwestern project corner. This asphalt and concrete lot is found directly east of a concrete foundation of a no longer extant structure. The concrete and asphalt lot and the foundation are found directly to the north of Santiago Canyon Road. The project area was easily accessible from the entrance to the concrete recycling facility along Santiago Canyon Road. Access could also be obtained through a chain-link fence gate and a dirt access road found along the northern project boundary.

The project area exhibited varied surface visibility, ranging from poor to good. The surface visibility was very poor in the northern portion, in Santiago Creek, in the eastern-most and westernmost extensions, and in the southern-most, western corner. In these areas, visibility ranged from about 0 percent to 10 percent, due to the presence of dense vegetation. Visibility increased to about 50 percent in the central portion of the project area, and to about 100 percent along the dirt access roads found throughout.

The soils observed in the project area along the dirt access roads consisted of small gravels not more than 3 centimeters in diameter, found within a light brown alluvium. Numerous rock inclusions were noted throughout, ranging in size from pebbles to cobbles. These inclusions were rounded due to water-related erosion and some were angular. Concentrations of imported angular materials were noted in the northeast corner, to the north of Santiago Creek, in the central portion of the project area, and along the access roads in the southwesternmost project corner, westernmost extension and to the north of the active concrete recycling facility. Additional angular rocks were noted along the other access roads, and appeared to have been altered due to vehicular activity. A concentration of concrete fragments was observed in the central portion of the project area. The surface soils have been adversely impacted by vehicular activity, heavy machinery, historic-era sand and gravel mining operations, active concrete recycling activities, and historic-era citrus cultivation.
Furrows were observed in the northern and eastern-most extensions of the project area, and these presumably relate to the past use of the project area for the production of citrus crops.

Relatively minimal modern refuse was noted throughout the project area, and was more prevalent in the northern portion, along the northern boundary and in a vegetation-laden field in the southern central portion. Observed refuse included plastic oil containers, clothing, a Christmas ornament, and several full plastic trash bags presumably containing modern, domestic refuse.

During the pedestrian survey, no prehistoric-age resources and one potentially historic-age foundation and an adjacent asphalt and concrete lot were detected. Portions of the concrete and asphalt lot may be of historic age, and were recorded in conjunction with the foundation as Site 001. In addition, previously recorded prehistoric-age resource CA-ORA-369 could not be relocated.

CA-ORA-369
CA-ORA-369 was originally recorded on October 13, 1972 by A. Marquette and J. Houser as a prehistoric-age artifact scatter within an area cleared of vegetation (Marquette and Houser 1972). At that time, the site consisted of a polyhedral core, shell scatter, flake waste and additional cores, and measured approximately 300 meters by 300 meters. The mapped location of this site is found in the northeastern quarter of the project area, to the north of Santiago Creek. The site was relocated in 1976 by Drover as an extremely minimal prehistoric deposit (Drover 1976). Drover notes that the site lacks interpretive data, and that it should be subsurface tested prior to any disturbance. This site was then surface collected and tested for the presence of subsurface artifact deposits in 1979 (APC 1979). The Archaeological Planning Collaborative (APC) mapped the presence of surface artifacts, conducted soil pH analysis, and then excavated two test units in areas proposed to be impacted by the Deimer Pipeline Project. A total of 11 lithics, 12 shell fragments, three fire-affected rocks, and one hammerstone were collected at the surface. Two lithics were recovered from the subsurface, and no diagnostic artifacts or midden deposits were detected. Based upon this data, the site was determined to be a surface scatter with little to no depth, and of no interpretive value for the prehistory of the area. Rather, the site appeared to be a peripheral site related to the more permanent sites found elsewhere along Santiago Creek. For this reason, the construction of the pipeline was found to result in no significant loss of archaeological data, and APC suggested that the site be avoided as much as possible during the installation of the pipeline (APC 1979). Based upon the results of this subsurface testing program the interpretation of the data, the site does not appear to be significant under the provisions of CEQA.

Historic Age Foundation/Concrete and Asphalt Lot (Site 001)
Located in the southwestern corner of the project area is a concrete foundation from a no longer extant building and an adjacent concrete and asphalt lot surrounded by a chain-link fence. These features are found directly to the north of Santiago Canyon Road, and presumably relate to the previous use of portions of the project area for the production of citrus, and then as a sand and gravel surface mining and processing center. The foundation and some of the concrete pads may relate to the citrus groves that once occupied portions of the project area, and structures appear to be present at this location in the Historic Era Aerial Photograph presented as Exhibit 3.5-1. The exact date of the currently observable features are unknown, but portions of the site are of historic age.
based upon the results of the aerial photograph review. For this reason, all of the existing features were recorded as constituents of an archaeological site.

The concrete foundation is currently surrounded by vegetation and filled with cut eucalyptus trees and other assorted vegetation waste. Three of the four sides of the foundation are still extant, as the northern side appears to be missing. Modern refuse was noted to the north of the foundation, and a dirt road is found to the east. Eucalyptus windrows are found trending north-south, within the general vicinity of the site. A concrete pad is located approximately 15 to 20 meters to the southeast of the foundation, and no evidence of a date stamp was observed. A utility pole is also located near this concrete pad, and the pole exhibits the identification number 718839E. This pole also exhibits two nails, reading 25 and 48, from left to right. These presumably indicate that the pole is 25 feet tall, and was either erected or inspected in 1948. It is probable that these features are represented at the southern terminus of a north-south trending eucalyptus windrow. Their presence indicates that at least some of the features in this area were present by 1952, and may indicate their association with citrus production within the project area. Additional concrete pads were also noted to the east of the foundation and utility pole, and some or all of these concrete pads may have been contemporaneous to the foundation. These pads may have been reused, as they could have been incorporated into the existing concrete and asphalt lot.

Located to the east of the concrete foundation and utility pole is a concrete and asphalt lot surrounded by a chain-link fence. No date stamps could be located within this lot, despite the visual scrutiny of the entire surface. This area has painted parking spaces in the western portion, a concrete ramp/roll-off in the southwestern corner, and abandoned soil sorting equipment in the central portion. One of the machines exhibits a conveyor belt, presumably used to sort the aggregate, and the other machine retained a brand name that reads “Product of Deister Machine Company, Fort Wayne, Indiana.”

According to the Deister Machine, Inc. website, Deister Machine is a family owned business that began in Fort Wayne, Indiana in 1912. The company began with the construction of a separating table, which used differential motion to separate ore from lighter particles. The ridges found on the separating table caught the heavier ore, and then water was used to wash away the lighter soil particles (Deister Machine, Inc. 2008). The machine present within the concrete and asphalt lot is presumably a separating machine, and appears to be consistent with a product known as a basemounted, step-deck vibrating grizzly. The product label present within the project area appears to be consistent with relatively modern Deister product labels. However, the website does not provide any information on the evolution of the Deister Machine, Inc. brand-name label.

This resource was recorded onto a Department of Parks and Recreation (DPR) 523 Form and was submitted to the SCCIC for the assignment of a primary number. The site does not appear to be significant and is considered neither a historical nor an archaeological resource for the purposes of CEQA.
Exhibit 3.5-1
Archaeological and Paleontological Monitoring Areas
A new pedestrian survey was conducted for the property on December 1, 2017. Most of the property south of the creek has been heavily impacted from sand and gravel activities. Only one small area in the southwest corner immediately east of a fenced construction yard could be surveyed. However, in the northernmost section of the property, immediately south of Mabury Street, is a relatively narrow strip of land in that general area where CA-ORA-369 was originally recorded, ultimately tested, and found ineligible for the CR. Most of that part of the property had been recently graded, exposing surface soils over most of the area, which were surveyed. The new survey located a Fletcher’s Castoria bottle (ca. 1900–1930). No other historic period artifacts were noted in the area. In the general area where CA-ORA-369 was located, a single Argopectin spp. shell fragment was observed. No other prehistoric artifacts were observed. Neither artifact was collected and no further work is recommended in the area of the two items. The 2008 investigation recorded an old concrete foundation and adjacent asphalt and gravel lot. The site was not indicated on the topographic records search map at the SCCIC, and no record of the site is on file with SCCIC. This is likely the fenced lot across from Jamestown Way off of E. Santiago Canyon Road. At the time of its recordation, it was deemed insignificant and no further work was recommended. The lot is currently used for parking and various activities related to the mining. Nothing of historic significance was observed within the fenced lot during the new survey.

Addendum to the Phase I Cultural Resources Assessment

BCR Consulting prepared an Addendum to the Phase I Cultural Resources Assessment, dated March 25, 2011. The Addendum addressed peer review comments, a revised project description, updated information regarding local prehistoric cultural sequence and villages, expanded city history, and more explicitly defined recommendations with a figure depicting monitoring areas.

Updated Native American Consultation

An updated Native American Consultation for the Rio Santiago Specific Plan Project was prepared by BCR Consulting, dated May 12, 2011. Subsequently, on March 3, 2017, the City contacted three tribes pursuant to AB 52. Each tribe was notified in writing of the proposed project and invited to consult with the City. The letters were sent via certified mail, but to date the City has not received any responses.

3.5.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, cultural resources impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
d) Disturb any human remains, including those interred outside of formal cemeteries?

Additionally, Appendix G sets forth the following thresholds of significance for tribal cultural resources:

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

b) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

c) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.5.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Historic Resources

| Impact CUL-1: | Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered historic resources. |

Impact Analysis

The results of the cultural resource record search indicate that there is one previously recorded resource within the project area boundaries, and a total of eleven resources within the search radius. Eight prehistoric-age and three historic-age resources are recorded within 1 mile of the project area. Two of the historic-age resources are NR listed properties, and these are located more than 0.25 mile from the project area. However, these resources will not be affected by the proposed project.

Review of the 1896 United States Geological Survey (USGS) Anaheim, CA 30-minute and the 1902 (reprinted 1946) 30-minute Corona, Calif. Quadrangle maps revealed neither structures nor any other development within the project area boundaries. The 1942 USGS Anaheim, Calif. 15-minute Quadrangle map shows four structures along Santiago Canyon Road, along the southern project area boundary. Four additional structures are depicted in the southeastern corner of the project area, adjacent to a hammer and pick symbol. With the exception of one potentially historic-age foundation and an adjacent concrete and asphalt lot, no evidence of these structures were detected during the pedestrian survey.

During the pedestrian survey, no prehistoric-age resources and one potentially historic-age foundation and an adjacent asphalt and concrete lot were detected. Portions of the concrete and...
asphalt lot may be of historic age, and were recorded in conjunction with the foundation as Site 001. These features presumably relate to the previous use of the project area for citrus production and as a surface mining and processing center. This resource was recorded onto a Department of Parks and Recreation (DPR) 523 Form and was submitted to the SCCIC for the assignment of a primary number. The site does not appear to be significant and is considered neither a historical nor an archaeological resource for the purposes of CEQA. Therefore, the creation and submittal of the DPR 523 Form for this resource fully suffices for mitigating potential impacts associated with the proposed project. An additional DPR 523 Update Form was created for previously recorded resource CA-ORA-369, in an effort to keep their files current. This resource could not be relocated during the present survey or during previous surveys (LSA 1994; McKenna et al. 2000). This is presumably due to the negligible surface visibility at the mapped location, and to the collection of some or all of the surface artifacts during a subsurface testing program (APC 1979). This testing program yielded a small amount of debitage, no diagnostic artifacts and no observable midden deposits. The site was determined to be a surface scatter with little to no depth, and of no interpretive value for the prehistory of the area. Based upon the results of this subsurface testing program and the interpretation of the data, the site does not appear to be significant under the provisions of CEQA. Presently, the mapped location of the site is within the portion of the project area proposed as open space. Therefore, minimal impacts would occur to the remnants of the site, as its location would be entirely avoided by development.

Based upon the results of the records search, where a previously recorded resource is known within the project area, the location along Santiago Creek, which exhibits numerous prehistoric-age sites in the region, and the negligible surface visibility during the pedestrian survey, FCS finds a high probability that significant, intact subsurface deposits could be uncovered during development. This potential is high within undisturbed or minimally disturbed portions of the project area and significantly lower in areas that have been subject to historic-era surface mining and processing activities. Therefore, the project area has been generally assigned high cultural resource sensitivity, and FCS recommends archaeological monitoring in specific portions during development. Monitoring during development would reduce project impacts to less than significant levels.

**Level of Significance Before Mitigation**
Potentially significant impact.

**Mitigation Measures**

**MM CUL-1**
In the event that buried cultural resources are discovered during construction, operations shall stop within a 50-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist and shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project
area should be recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA criteria.

If the resources are determined to be unique historic resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor in accordance with Public Resource Code Section 21083.1 and CEQA Guidelines Section 15126.4 and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

**Level of Significance After Mitigation**

Less than significant impact.

**Archaeological Resources**

| Impact CUL-2: | Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered archaeological resources. |

**Impact Analysis**

As addressed in Impact CUL-1, the archaeological records search identified one previously recorded resource within the project boundary. Additionally, portions of the concrete and asphalt lot may be of historic age. Based upon the results of the records search, where a previously recorded resource is known within the project area, the location along Santiago Creek, which exhibits numerous prehistoric-age sites in the region, and the negligible surface visibility during the pedestrian survey, FCS finds a high probability that significant, intact subsurface deposits could be uncovered during development. A qualified archaeologist shall be contacted to assess the nature and significance of a find in the event an archaeological resource is recovered, as addressed in Mitigation Measure CUL-1. The implementation of this mitigation measure will ensure that construction shall stop in the vicinity of any potential resource until the significance of the resource is confirmed, and will ensure that significant resources will be avoided or excavated and preserved. With implementation of mitigation, impacts associated with archaeological resources would be less than significant.

Additionally, the 2011 Addendum prepared by BCR Consulting indicated that archaeological monitoring is required during ground disturbing activities within the areas depicted on Exhibit 3.5-1. As such, Mitigation Measure CUL-2 requires monitoring within these areas during disturbing activities. With implementation of mitigation, impacts associated with archaeological resources would be less than significant.
**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

Implement Mitigation Measure CUL-1 and:

**MM CUL-2**

During the ground disturbing activities in the areas depicted in Exhibit 3.5-1, a qualified archaeological and paleontological monitor shall be present on-site to observe earthwork activities. In the event of a discovery of an archaeological or paleontological resource, the monitor shall have the discretion to halt all ground disturbing activities within 50 feet of the find until it has been evaluated for significance. If the find is determined to have archaeological or paleontological, the procedures in Mitigation Measure CUL-1 or Mitigation Measure CUL-3 shall be implemented. Monitoring may cease once all of the areas depicted in Exhibit 3.5-1 have been thoroughly disturbed.

**Level of Significance After Mitigation**

Less than significant impact.

**Paleontological Resources**

| Impact CUL-3: | Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered paleontological resources. |

**Impact Analysis**

The paleontological review indicated that the lowest lying portions of the Santiago Creek drainage consist of younger Quaternary alluvium, while the majority of the surrounding acreage has surficial deposits of older Quaternary terrace sediments. These exposures have marine and non-marine components. The records check indicated that localities are known from such deposits and are known within the City of Orange.

Based upon the results of this review, it is possible that significant paleontological resources may be adversely impacted by development-related ground disturbance. Therefore, FCS has determined that the project area has varied paleontologic sensitivity, ranging from low to high. This potential is considered low in the younger Quaternary deposits, and high for older Quaternary terrace deposits at depth and for any exposures of the Sespe/Vaqueros Formations. A paleontologic monitoring program is recommended by FCS to mitigate potential adverse impacts to paleontological resources in the older Quaternary terrace deposits at depth and in any exposures of the Sespe/Vaqueros Formations. A monitoring program for excavation should be developed prior to any grading within the project area, and should be consistent with the provisions of CEQA. Implementation of the paleontological monitoring program would reduce project impacts to less than significant levels.

Additionally, the 2011 Addendum prepared by BCR Consulting indicated that paleontological monitoring is required during ground disturbing activities within the areas depicted on Exhibit 3.5-1. An updated paleontological records search conducted in November of 2017 supports this conclusion. As such, Mitigation Measure CUL-2 requires monitoring within these areas during ground-disturbing
activities. With implementation of mitigation, impacts associated with paleontological resources would be less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM CUL-3**

If the subsurface excavations for this project are proposed to exceed depths of 15 feet below surface, a qualified paleontological monitor should be retained to observe such excavations, which may breach the older Quaternary Alluvium deposits. In this situation, a detailed Mitigation Monitoring Plan (MMP) or Paleontological Resource Impact Management Plan (PRIMP) should be prepared in order to set forth the observation, collection, and reporting duties of the paleontological monitor. Additional mitigation measures and procedures will be outlined in the MMP or PRIMP as needed.

In the event that fossils or fossil-bearing deposits are discovered during construction activities that are shallower than 10 feet in depth, excavations within a 50-foot radius of the find shall be temporarily halted or diverted. The project contractor shall notify a qualified paleontologist to examine the discovery. The paleontologist shall document the discovery as needed (in accordance with Society of Vertebrate Paleontology standards), evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5.

The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If the Applicant determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The plan shall be submitted to the Lead Agency for review and approval prior to implementation, and the Applicant shall adhere to the recommendations in the plan.

**Level of Significance After Mitigation**

Less than significant impact.

**Burial Sites**

**Impact CUL-4:** Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered human burial sites.

**Impact Analysis**

There are no existing or known formal cemeteries within or adjacent to the project site. As a result, project implementation is not anticipated to impact human remains associated with either a formal or informal cemetery. However, there is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, the procedures set forth in Public Resource Code Section 5097.98 would apply and are reflected in
Mitigation Measure CUL-4. Implementation of this mitigation measure would reduce impacts to a level of less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM CUL-4**

In the event of an accidental discovery or recognition of any human remains, Public Resource Code (PRC) Section 5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the Native American Heritage Commission (NAHC) shall identify the person or persons it believes to be the “most likely descendant” of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or

2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;
   - The descendent identified fails to make a recommendation; or
   - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

**Level of Significance After Mitigation**

Less than significant impact.
3.6 - Geology and Soils

This section describes the existing geology, soils, and seismicity setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Geotechnical Investigation prepared by Ginter & Associates, Inc., which is provided in Appendix I.

3.6.1 - Existing Conditions

Regional Geology

The project site is situated in the northeastern portion of the Peninsular Ranges Geomorphic Province at an average elevation of approximately 400 feet above mean sea level and subjacent to the Santa Ana Mountains, which rise to the east to more than 3,000 feet above mean sea level. Santiago Creek, which flows through the site, transports sediments and forms coalescing alluvial fans, resulting in a broad surface that slopes away from the hills toward the Pacific Ocean to the southwest.

Seismic Hazards

Faulting

Faults form in rocks when stresses overcome the internal strength of the rock, resulting in a fracture. Large faults develop in response to large regional stresses operating over a long time, such as those stresses caused by the relative displacement between tectonic plates. According to the elastic rebound theory, these stresses build up in the earth’s crust until enough stress has built up to exceed the strength along a fault and cause a brittle failure. The rapid slip between the two stuck plates or coherent blocks generates an earthquake. Following an earthquake, stress will build once again until the occurrence of another earthquake. The magnitude of slip is related to the maximum allowable stress that can be built up along a particular fault segment. The greatest buildup in stress due to the largest relative motion between tectonic plates or fault blocks over the longest period will generally produce the largest earthquakes. The distribution of these earthquakes is a study of much interest for both hazard prediction and the study of active deformation of the earth's crust. Deformation is a complex process and strain caused by tectonic forces is not only accommodated through faulting, but also by folding, uplift, and subsidence, which can be gradual or in direct response to earthquakes.

Faults are mapped to determine earthquake hazards, since they occur where earthquakes tend to recur. A historic plane of weakness is more likely to fail under stress than a previously unbroken block of crust. Faults are, therefore, a prime indicator of past seismic activity, and faults with recent activity are presumed to be the best candidates for future earthquakes. However, since slip is not always accommodated by faults that intersect the surface along traces, and since the orientation of stress and strain in the crust can shift, predicting the location of future earthquakes is complicated. Earthquakes sometimes occur in areas with previously undetected faults or along faults previously thought inactive.
Local Faulting

The City of Orange is located in the seismically active southern California region. The largest faults in the region include the Whittier-Elsinore fault, the Newport-Inglewood fault, the San Andreas fault, and the San Jacinto fault. The northwestward flow of the Pacific Plate mantle is now driving the collision between the Peninsular Ranges block and the Sierra-Great Valley provinces of the North American plate.

There are no active faults known to pass through the project site. In addition, there are no Alquist-Priolo Fault Zones in the immediate project vicinity. The nearest, known active faults are the Peralta Hills thrust fault located approximately 0.1 mile northeast of the project site, and the El Modeno fault located approximately 0.43 mile southwest of the project site.

Seismic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking, ground lurching, soil liquefaction, and lateral spreading. These hazards are discussed individually.

Fault Rupture

Fault rupture is a seismic hazard that affects structures sited above an active fault. The hazard from fault rupture is the movement of the ground surface along a fault during an earthquake. Typically, this movement takes place during the short time of an earthquake but can also occur slowly over many years in a process known as creep. Most structures and underground utilities cannot accommodate the surface displacements of several inches to several feet commonly associated with fault rupture or creep. As previously indicated, no active faults are known to pass through the project site. In addition, there are no Alquist-Priolo Fault Zones in the immediate project vicinity.

Ground Shaking

The severity of ground shaking depends on several variables such as earthquake magnitude, epicenter distance, local geology, thickness, and seismic wave-propagation properties of unconsolidated materials, groundwater conditions, and topographic setting. Ground shaking hazards are most pronounced in areas near faults or with unconsolidated alluvium.

The most common type of damage from ground shaking is structural damage to buildings, which can range from cosmetic cracks to total collapse. The overall level of structural damage from a nearby large earthquake would likely be moderate to heavy, depending on the characteristics of the earthquake, the type of ground, and the condition of the building. Besides damage to buildings, strong ground shaking can cause severe damage from falling objects or broken utility lines. Fire and explosions are also hazards associated with strong ground shaking.

Ground Failure

Ground failure includes liquefaction and the liquefaction-induced phenomena of lateral spreading, and lurching.
Liquefaction is a process by which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels. The process of liquefaction involves seismic waves passing through saturated granular layers, distorting the granular structure, and causing the soil to densify.

Liquefaction can cause the soil beneath a structure to lose strength, which may result in the loss of foundation-bearing capacity and which could cause a structure to settle or tip. Liquefaction can also result in the settlement of large areas because of the densification of the liquefied deposit. Where structures are located within liquefied deposits, the liquefaction can result in the structure to rise as a result of buoyancy.

According to the California Geological Survey Liquefaction Hazard Zoning Map, the project site is located within a liquefaction hazard zone. A Liquefaction Evaluation Report prepared for the Orange 7.5-minute quadrangle, Orange County, California indicated that areas where younger fan deposits and active wash deposits are included in liquefaction hazard zones. The liquefaction potential for the project site is low to moderate.

Lateral spreading is lateral ground movement, with some vertical component, as a result of liquefaction. In effect, the soil rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than 2 percent, under certain circumstances, and can cause ground cracking and settlement. Lurching is the movement of the ground surface toward an open face when the soil liquefies. An open face could be a graded slope, stream bank, canal face, gully, or other similar feature.

Landslides and Slope Failure

Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides, and rock fall. These processes are commonly triggered by intense precipitation. Seismic activity can also trigger landslides and rockfalls.

Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil. Geologists classify landslides into several different types that reflect differences in the type of material and type of movement. The four most common types of landslides are translational, rotational, earth flow, and rock fall. Debris flows and earth flows are another type of landslide that are characterized by soil and rock particles in suspension with water and which often move with considerable speed. Debris flows often refer to flows that contain coarser soil and rock materials while earth flows frequently refer to slides that are predominantly finer materials. Mudslide is a term that appears in non-technical literature to describe a variety of shallow, rapidly moving earth flows.

According to the City of Orange General Plan EIR, the project site is not located within a landslide hazard area as mapped on the Environmental and Natural Hazard Policy map. The project site is not located within the vicinity of large hills or steep mountainsides.
Soils

The United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey maps the project site as containing pits, Modjeska gravelly loam, Soboba gravelly loamy sand, and Botella clay loam. Table 3.6-1 summarizes the soils that underlie the project site.

<table>
<thead>
<tr>
<th>Soil</th>
<th>Landform</th>
<th>Parent Material</th>
<th>Drainage Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pits*</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Modjeska gravelly loam, 2 to 9 percent slopes</td>
<td>Terraces</td>
<td>Alluvium derived from mixed</td>
<td>Well drained</td>
</tr>
<tr>
<td>Soboba gravelly loamy sand, 0 to 5 percent slopes</td>
<td>Alluvial fans</td>
<td>Sandy and gravelly alluvium derived from mixed</td>
<td>Excessively drained</td>
</tr>
<tr>
<td>Botella clay loam, 2 to 9 percent slopes</td>
<td>Alluvial fans</td>
<td>Alluvium derived from sedimentary rock</td>
<td>Well drained</td>
</tr>
</tbody>
</table>

Note:
* Signifies that area has been surface mined

3.6.2 - Regulatory Setting

Federal

National Earthquake Hazards Reduction Program

The National Earthquake Hazards Reduction Program (NEHRP) was established by the U.S. Congress when it passed the Earthquake Hazards Reduction Act of 1977, Public Law 95–124. In establishing the NEHRP, Congress recognized that earthquake-related losses could be reduced through improved design and construction methods and practices, land use controls and redevelopment, prediction techniques and early warning systems, coordinated emergency preparedness plans, and public education and involvement programs. The four basic goals remain unchanged:

- Develop effective practices and policies for earthquake loss reduction and accelerate their implementation.
- Improve techniques for reducing earthquake vulnerabilities of facilities and systems.
- Improve earthquake hazards identification and risk assessment methods, and their use.
- Improve the understanding of earthquakes and their effects.

Several key federal agencies contribute to earthquake mitigation efforts. There are four primary NEHRP agencies:

- National Institute of Standards and Technology of the Department of Commerce
- National Science Foundation
- United States Geological Survey (USGS) of the Department of the Interior
- Federal Emergency Management Agency (FEMA) of the Department of Homeland Security
Implementation of NEHRP priorities is accomplished primarily through original research, publications, and recommendations to assist and guide state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

**State**

**Alquist-Priolo Earthquake Fault Zoning Act**

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code [PRC] Sections 2621 to 2630) was passed in 1972 to provide a statewide mechanism for reducing the hazard of surface fault rupture to structures used for human occupancy. The main purpose of the Act is to prevent the siting of buildings used for human occupancy across the traces of active faults. It should be noted that the Act addresses the potential hazard of surface fault rupture and is not directed toward other earthquake hazards, such as seismically induced ground shaking or landslides.

The law requires the State Geologist to identify regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults, and to depict these zones on topographic base maps, typically at a scale of 1 inch to 2,000 feet. Earthquake Fault Zones vary in width, although they are often 0.75 mile wide. Once published, the maps are distributed to the affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. With the exception of single-family wood-frame and steel-frame dwellings that are not part of a larger development (four units or more), local agencies are required to regulate development within the mapped zones. In general, construction within 50 feet of an active fault zone is prohibited.

**Seismic Hazards Mapping Act**

The Seismic Hazards Mapping Act (PRC Sections 2690 to 2699.6), which was passed in 1990, addresses earthquake hazards other than surface fault rupture. These hazards include strong ground shaking, earthquake-induced landslides, liquefaction, or other ground failures. Much like the Alquist-Priolo Earthquake Fault Zoning Act discussed above, these seismic hazard zones are mapped by the State Geologist to assist local government in the land use planning process. The Act states, “it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety.” The Act also states, “cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard.”

**California Building Code**

The State of California provides minimum standards for building design through the California Building Standards Code (California Code of Regulations, Title 24). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls. The California Building Standards Code applies to building design and construction in the state and is based on the federal Uniform Building Code used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The Building Code has been modified for California conditions with more detailed and/or more stringent regulations.
The State’s earthquake protection law (California Health and Safety Code Section 19100, et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the Building Code. The Building Code identifies seismic factors that must be considered in structural design. Chapter 18 of the Building Code regulates the excavation of foundations and retaining walls, and Appendix Chapter A33 regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

The Building Code is updated every 3 years, and the current 2016 CBC took effect January 1, 2017.

Local Regulations

City of Orange
General Plan
The City of Orange set forth the following goals, objective, and policies that are relevant to geology, soils, and seismicity:

Public Safety Element
- **Goal 1.0:** Protect residents and businesses from seismic hazards and other geologic constraints.
- **Policy 1.1:** Minimize the potential loss of life and damage to structures that may result from an earthquake.
- **Policy 1.2:** Educate and train individuals and neighborhoods how to respond to emergency situations.

Infrastructure Element
- **Goal 5.0:** Ensure lifeline infrastructure systems that meet the City’s public health and safety needs.
- **Policy 5.3:** Identify engineering vulnerabilities in lifeline utilities exposed to human caused and natural hazards, including seismic activity, wildland fire, and flooding.
- **Policy 5.5:** Review and limit the location and intensity of development and placement of lifeline infrastructure in identified earthquake fault zones.

City of Orange Grading Requirements
The City’s Municipal Code, Section 17.10.90 describes rules and regulations to control erosion associated with grading activities.

3.6.3 - Methodology
FCS relied upon the Geotechnical Investigation prepared by Ginter & Associates, Inc., which is provided in Appendix I. FCS also obtained from sources including the City of Orange General Plan, the California Department of Conservation, and the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey. Additionally, FCS performed a preliminary site visit in which photos and additional notes were taken about the site and its surroundings. A Geotechnical Report was not prepared as a part of the proposed project, but future design-level geotechnical
investigations will be required once development under the Specific Plan is ready to proceed, prior to the issuance of building permits.

### 3.6.4 - Thresholds of Significance

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether impacts to geology and soils are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- **a)** Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:
  - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
  - ii. Strong seismic ground shaking?
  - iii. Seismic-related ground failure, including liquefaction?
  - iv. Landslides?

- **b)** Result in substantial soil erosion or the loss of topsoil?

- **c)** Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

- **d)** Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

- **e)** Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

### 3.6.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

#### Earthquakes

**Impact GEO-1:** The project may expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving seismic hazards.

**Impact Analysis**

This impact assesses the potential for the proposed project to expose people or structures to potential substantial adverse effects involving seismic hazards.

**Fault Rupture**

As mentioned previously, no known active faults have been mapped on the project site; however, both the El Modeno and Peralta Hills faults are located less than 0.5 mile from the project site. A
1991 fault investigation prepared by Pacific Soils Engineering, Inc. concluded that an inferred trace of the El Modeno Fault does not cross the project site. Furthermore, the El Modeno fault is considered inactive. Similarly, the Peralta Hills Fault was found to not be sufficiently active under the Alquist-Priolo Special Studies Zone Act by the California Division of Mines and Geology. For these reasons, the development of the proposed project would not expose persons or structures to fault rupture hazards. Impacts would be less than significant.

**Strong Ground Shaking**

The southern California region is considered seismically active. Small earthquakes occur within the region every year, and large earthquakes have occurred and are expected to occur in the future. Based on the proximity of the site to known active seismic sources, it should be expected that the site will experience moderately strong to strong seismic ground shaking during the project’s lifetime.

To mitigate the ground shaking effects, all structures shall be designed using sound engineering judgment and the latest Building Code requirements as a minimum. At the time of this writing, a design-level geotechnical report for the Project was not available. Such a report would provide recommendations on the appropriate level of soil engineering and building design necessary to minimize ground-shaking hazards. Accordingly, Mitigation Measure GEO-1 is proposed requiring the applicant to submit such a study to Orange County for review and approval prior to proceeding with development consistent with the Specific Plan analyzed in this EIR. The implementation of this mitigation measure would ensure that impacts related to strong ground shaking hazards would be less than significant.

**Ground Failure and Liquefaction**

As indicated above, the potential for liquefaction for the entire project site is considered low to moderate. The 1997 Seismic Hazard Zone prepared for the project site and its surrounding area concluded that the liquefaction potential for the project site is nominal. However, because of the proposed project’s location to Santiago Creek, the potential for liquefaction should be further explored and addressed during a design-level geotechnical exploration.

**Landslides**

The project site is not located within the vicinity of large hills or steep mountainsides. Because of the lack of significant topography, land sliding is not expected on the project site. Therefore, no impact is anticipated related to land sliding.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM GEO-1**

Prior to the issuance of building permits, the project applicant shall submit a design-level Geotechnical Investigation to City of Orange for review and approval. The investigation shall be prepared by a qualified engineer and identify grading and building practices necessary to achieve compliance with the latest adopted edition of the California Building Standards Code’s geologic, soils, and seismic requirements. The measures identified in the approved report shall be incorporated into the Project plans.
Level of Significance After Mitigation
Less than significant impact.

Erosion

| Impact GEO-2 | The project will result in substantial soil erosion or the loss of topsoil. |

Impact Analysis
The project would involve the development of residential uses on 40.7 acres of the project site and open space and recreation uses on the remaining acreage. Development activities would involve vegetation removal, grading, soil engineering, and other activities that have the potential to result in erosion. If left unabated, the accumulation of sediment in downstream waterways could result in the blockage of flows, potentially causing increased localized ponding or flooding. However, as detailed in Section 3.9, Hydrology and Water Quality, the project will be subject to the City’s existing regulations requiring implementation of stormwater quality control measures during construction activities. Some pollution prevention practices include erosion control measures such as backflow prevention devices and vegetating disturbed areas, which would prevent soil and sediment from entering downstream waterways. These pollution prevention measures are incorporated into Mitigation Measure HYD-1a.

In summary, through the implementation of Mitigation Measures GEO-1 and HYD-1a, impacts from erosion would be less than significant.

Level of Significance Before Mitigation
Potentially significant impact.

Mitigation Measures
Implement Mitigation Measure GEO-1 and HYD-1a.

Level of Significance After Mitigation
Less than significant impact.

Unstable Geologic Units or Soils

| Impact GEO-3 | The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. |

Impact Analysis
The project site is underlain by terraces and alluvial fans near Santiago Creek. Terraces and alluvium are considered stable and suitable to support urban development. Standard grading and soil engineering practices would be required for compliance with state and local building code standards, and thus are not included separately as mitigation. Compliance with these mandatory standards would ensure that project foundations were adequately supported and are not at risk of failure due to unstable geologic units or soils. Impacts would be less than significant.
Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Expansive Soil

Impact GEO-4: The project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis
The project site is underlain by Modjeska gravelly loam (2 to 9 percent slopes), which is well-drained in mixed alluvium on terraces; Soboba gravelly loam (0 to 5 percent slopes), an excessively drained soil formed in alluvium from granitic rocks; and Botella clay loam (2 to 9 percent slopes), a well-drained soil formed in alluvial material from sedimentary rocks. The majority of the soils on-site consist of gravelly and stony sands with low clay content. Moreover, the project site previously supported aggregate mining (sand and gravel). As such, these soil types do not retain water in a manner such that they would have a substantial shrink-swell potential. Additionally, standard grading and soil engineering practices would be performed in accordance with state and local building code standards to ensure that expansive soils do not pose a risk to structures developed under the Specific Plan. Impacts would be less than significant.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.
3.7 - Greenhouse Gas Emissions

This section describes the existing greenhouse gas (GHG) emissions setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on information provided by the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 was used to quantify project-related emissions. The CalEEMod results used to support the GHG analysis are included in this Draft EIR as part of Appendix F.

3.7.1 - Existing Conditions

Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. This data is used to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The report also concluded that “[w]arming of the climate system is unequivocal,” and that “[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.”

An individual project cannot generate huge amount of GHG emissions to affect a significant change in global climate. However, the project participates in the potential for global climate change by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change.

Consequences of Climate Change in California

In California, climate change may result in consequences such as the following (from CCCC 2006 and Moser et. al 2009).

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.

- **Increase risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grassland and chaparral ecosystems of Southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant “fuel” available to burn in the fall. In contrast, a hotter,
drier climate could promote up to 90 percent more Northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts and milk.

- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today’s conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.

- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California’s coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.

- **A decrease in the health and productivity of California’s forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

**Consequences of Climate Change in the Orange County**

Figure 3.7-1 displays a chart of measured historical and projected annual average temperatures in the Orange County area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios. The results indicate that temperatures are predicted to increase by 3.6 degrees Fahrenheit (°F) under the low-emissions scenario, and 6.1°F under the high emissions scenario (Cal Adapt 2016).
Human Health Effects of GHG Emissions

GHG emissions from development projects would not result in concentrations that would directly impact public health. However, the cumulative effects of GHG emissions on climate change have the potential to cause adverse effects to human health.

The U.S. Global Change Research Program in its report, Global Climate Change Impacts in the U.S. (2009) has analyzed the degree to which impacts on human health are expected to impact the United States.

Potential effects of climate change on public health includes:

- Direct Temperature Effects: Climate change may directly affect human health through increases in average temperatures, which are predicted to increase the incidence of heat waves and hot extremes.

- Extreme Events: Climate change may affect the frequency and severity of extreme weather events, such as hurricanes and extreme heat and floods, which can be destructive to human health and well-being.

- Climate-Sensitive Diseases: Climate change may increase the risk of some infectious diseases, particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects, such as malaria, dengue fever, yellow fever and encephalitis.

- Air Quality: Respiratory disorders may be exacerbated by warming-included increases in the frequency of smog (ground-level ozone) events and particulate air pollution (EPA 2009a).
Although there could be health effects resulting from changes in the climate and the consequences that can occur, inhalation of GHGs at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses.

**Climate Change**

Global climate change is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Global climate change is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not global climate change is occurring naturally or as a result of human activity. Some data suggests that global climate change has occurred in the past over the course of thousands or millions of years. These historical changes to Earth’s climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate-shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that global climate change is the result of increased concentrations of GHGs in Earth’s atmosphere, including carbon dioxide (CO$_2$), methane (CH$_4$), nitrous oxide (N$_2$O), and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed project cannot generate enough GHG emissions to effect a discernible change in global climate. However, the project may participate in the potential for global climate change by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change.

**Global Climate Change Defined**

Global climate change refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO$_2$, N$_2$O, CH$_4$, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important because of their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into Earth’s atmosphere, but prevent radioactive heat from escaping, thus warming Earth’s atmosphere. Global climate change can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (ARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural GHG effect, Earth’s average temperature would be approximately 61°F cooler than it is currently. The cumulative accumulation of these gases in the earth’s atmosphere is considered to be the cause for the observed increase in Earth’s temperature.
Greenhouse Gases

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated because these gases are the primary contributors to global climate change from development projects. Although other substances such as fluorinated gases also contribute to global climate change, sources of fluorinated gases are not well defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. CO₂, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming. To describe how much global warming a given type and amount of GHG may cause, global warming potential (GWP) values are used to convert GHG emission values to “carbon dioxide equivalent” (CO₂e) units. The calculation of CO₂e is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas. For example, CH₄’s warming potential of 21 indicates that CH₄ has 21 times greater warming effect than CO₂ on a molecule-per-molecule basis. Table 3.7-1 describes select GHGs, including their global warming potentials. The global warming potential amounts are from IPCC Second Assessment Report. IPCC Fourth Assessment Report introduced updated global warming potentials. The new amounts have not been used in order to remain consistent with the amounts used to develop the ARB 2008 Scoping Plan and the draft South Coast Air Quality Management District (SCAQMD) thresholds.

Table 3.7-1: Description of Select GHGs

<table>
<thead>
<tr>
<th>GHG</th>
<th>Description and Physical Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrous oxide (N₂O)</td>
<td>Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 310.</td>
<td>Microbial processes in soil and water, fuel combustion, and industrial processes.</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.</td>
<td>Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.</td>
</tr>
<tr>
<td>Carbon dioxide (CO₂)</td>
<td>CO₂ is an odorless, colorless, natural GHG. Carbon dioxide’s global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.</td>
<td>Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.</td>
</tr>
<tr>
<td>Chlorofluorocarbons (CFCs)</td>
<td>These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorne atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth’s surface). Global warming potentials range from 3,800 to 8,100.</td>
<td>Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.</td>
</tr>
</tbody>
</table>
Table 3.7-1 (cont.): Description of Select GHGs

<table>
<thead>
<tr>
<th>GHG</th>
<th>Description and Physical Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfluorocarbons (PFCs)</td>
<td>Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth’s surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.</td>
<td>Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.</td>
</tr>
<tr>
<td>Sulfur hexafluoride (SF₆)</td>
<td>Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential of 23,900.</td>
<td>This gas is man-made and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.</td>
</tr>
<tr>
<td>Nitrogen trifluoride (NF₃)</td>
<td>Nitrogen trifluoride (NF₃) was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. It has a high global warming potential of 17,200.</td>
<td>This gas is used in electronics manufacture for semiconductors and liquid crystal displays.</td>
</tr>
</tbody>
</table>

Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change 2007a and 2007b.

Greenhouse Gas Emissions Inventories

Global

An emissions inventory is a database that lists, by source, the amount of air pollutants discharged into the atmosphere of a geographic area during a given time period. Emissions worldwide were approximately 43,286 million metric tons of carbon dioxide equivalents (MMTCO₂e) in 2012. As shown in Figure 3.7-2, China was the largest GHG emitter with over 10 billion metric tons of CO₂e, and the United States was the second-largest GHG emitter with over 6 billion metric tons of CO₂e (WRI 2014). The GHG emissions in more recent years may differ from the inventories presented in Figure 3.7-2; however, the data are representative of currently available inventory data.
As shown in Figure 3.7-1, the United States, as a single country, was the number two producer of GHG emissions in 2012. The primary GHG emitted by human activities in the United States was CO2. Specifically, CO2 from fossil fuel combustion was the largest source of US GHG emissions.

**State of California**

Although California’s rate of growth of GHG emissions is slowing, the State is still a substantial contributor to the United States emissions inventory total. The ARB compiles GHG inventories for the State of California. Figure 3.7-3 shows the contributors of GHG emissions in California between years 2000 and 2016 by Scoping Plan category. In 2016, the highest sector was transportation, contributing approximately 38 percent of total GHG emissions. The second highest sector was industrial, which includes sources from refineries, general fuel use, oil and gas extraction, cement plants, and cogeneration heat output. As shown in Figure 3.7-3, ARB reported that California’s GHG emissions inventory was 429.4 MMTCO2e in 2016 (ARB 2018).
Environmental Effects of Climate Change in California

The California Environmental Protection Agency (CalEPA) published a report titled, “Scenarios of Climate Change in California: An Overview,” (Climate Scenarios report) in February, 2006, that while not adequate for a California Environmental Quality Act (CEQA) project-specific or cumulative analysis, is generally instructive about the statewide impacts of global warming.

The Climate Scenarios report uses a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0–5.5 Fahrenheit (°F)); medium warming range (5.5–8.0°F); and higher warming range (8.0–10.5°F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of global climate change trends in California.

In addition, most recently on August 5, 2009, the State’s Natural Resources Agency released a public review draft of its “California Climate Adaptation Strategy” report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts, and precipitation changes. This report responds to the Governor’s Executive Order S-13-2008 that called on State agencies to develop California’s strategy to identify and prepare for expected climate impacts.

According to the reports, substantial temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions
scenarios of the Climate Scenarios report, the impacts of global warming in California have the potential to include but are not limited to the following areas:

- Air Quality/General Thermal Effects
- Water Resources
- Agriculture
- Forest and Landscapes
- Rising Sea Levels

**Human Health Effects of GHG Emissions**

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth’s ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas.

**3.7.2 - Regulatory Setting**

**International**

**Kyoto Protocol**

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations’ Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol’s commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

**Federal**

**Clean Air Act**

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the United States Environmental Protection Agency (EPA) issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs
threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. EPA et al. (127 S. Ct. 1438 (2007), however, the United States Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare.

The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the United States Congress adopts major climate change legislation. The EPA’s Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of GHG emissions. In order to manage the State’s energy needs and promote energy efficiency, Assembly Bill (AB) 1575 created the California Energy Commission (CEC) in 1975.

**State**

**Title 24 Energy Standards**

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The most current 2016 Building Energy Efficiency Standards went into effect on January 1, 2017 (CEC 2016).

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.
CALGreen contains both mandatory and voluntary measures; for non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. There are two tiers of voluntary measures for non-residential land uses, for a total of 36 additional elective measures.

California’s Building Energy Efficiency Standards are updated on an approximately three-year cycle. The code is updated on a regular basis, with the most recent update consisting of the 2016 California Green Building Code Standards that became effective January 1, 2017. Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

**California Assembly Bill No. 1493 (AB 1493)**

AB 1493 requires ARB to develop and adopt the nation’s first GHG emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California. Further, the legislature stated that technological solutions to reduce GHG emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California’s existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California’s implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General’s office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the federal CAA provides authority for the EPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts’ favor, holding that GHGs are air pollutants under the CAA.

On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff’s arguments and ruled in California’s favor. On December 19, 2007, the EPA denied California’s waiver.
request. California filed a petition with the Ninth Circuit Court of Appeals challenging EPA’s denial on January 2, 2008.

The Obama administration subsequently directed the EPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the EPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater GHG benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by “pooling” California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with EPA-adopted GHG standards would also comply with California’s standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal Corporate Average Fuel Economy (CAFE) program to demonstrate compliance with the AB 1493 regulations.

Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra’s snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The Executive Order directed the Secretary of the CalEPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California’s resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32)

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020.

This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32
specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the State achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, ARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMT CO₂e (emission sources by sector were transportation at 35 percent, electricity generation at 26 percent, industrial at 24 percent, residential at 7 percent, agriculture at 5 percent, and commercial at 3 percent). Accordingly, 427 MMT CO₂e was established as the emissions limit for 2020. For comparison, ARB’s estimate for baseline GHG emissions was 473 MMT CO₂e for 2000 and 532 MMT CO₂e for 2010. “Business as usual” conditions (without the 30 percent reduction to be implemented by ARB regulations) for 2020 were projected to be 596 MMT CO₂e.

In December 2007, ARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plans, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO₂ emissions in the State.

On December 11, 2008, ARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan’s recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMT CO₂e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, ARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the State’s reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMT CO₂e (or approximately 1.2 percent of the GHG reduction target).

ARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identifies the next steps for California’s climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG
emission reductions. The report establishes a broad framework for continued emission reductions beyond the year 2020, on the path to 80 percent below 1990 levels by the year 2050. The Update identifies progress made to meet the near-term objectives of AB 32 and defines California’s climate change priorities and activities for the next several years. The Update does not set new targets for the State, but describes a path that would achieve the long-term 2050 goal of Executive Order S-05-03 for emissions to decline to 80 percent below 1990 levels by the year 2050.

AB 32 does not give ARB a legislative mandate to set a target beyond the 2020 target from AB 32 or to adopt additional regulations to achieve a post-2020 target. The Update estimates that reductions averaging 5.2 percent per year would be required after 2020 to achieve the 2050 goal (ARB 2014). The 2017 Scoping Plan Update is discussed under Senate Bill (SB) 32.

**California Senate Bill No. 1368 (SB 1368)**

In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California’s utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

**Senate Bill 97 (SB 97)**

Pursuant to the direction of SB 97, the Governor’s Office of Planning and Research (OPR) released preliminary draft CEQA Guidelines amendments for GHG emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance-based standards. CEQA Guideline Section 15064.4(a) states:

> A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance based standards.
CEQA emphasizes that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA’s requirements for cumulative impacts analysis (see CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of GHG emissions:

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project’s incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guidelines amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a “good-faith effort, based on available information, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project.” The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies’ discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

**Executive Order S-01-07**

On January 18, 2007, California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California’s transportation fuel by at least ten percent by 2020. The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

**Senate Bills 1078 and 107 and Executive Order S-14-08**

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the State’s Renewable Energy Standard to 33 percent renewable power by 2020.
**Senate Bill 375**

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable community strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO’s regional transportation plan. ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO’s SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required being consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as “transit priority projects.”

**California Senate Bill 32 (SB 32)**

Effective January 1, 2017, SB 32 (Chapter 249, Statutes of 2016, ) added a new section 38566 to the Health and Safety Code. It provides that “[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [ARB] shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.” In other words, SB 32 requires California, by the year 2030, to reduce its statewide GHG emissions so that they are 40 percent below those that occurred in 1990.

The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. **SB 350**
   - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
   - Doubling of energy efficiency savings by 2030.

2. **Low Carbon Fuel Standard (LCFS)**
   - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).

3. **Mobile Source Strategy (Cleaner Technology and Fuels Scenario)**
   - Maintaining existing GHG standards for light- and heavy-duty vehicles.
   - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
   - Increase ZEV buses, delivery and other trucks.
4. Sustainable Freight Action Plan
   • Improve freight system efficiency.
   • Maximize use of near ZEVs and equipment powered by renewable energy.
   • Deploy over 100,000 ZEV trucks and equipment by 2030.

5. Short-Lived Climate Pollutant (SLCP) Reduction Strategy
   • Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
   • Reduce emissions of black carbon 50 percent below 2013 levels by 2030.

6. SB 375 Sustainable Communities Strategies
   • Increased stringency of 2035 targets.

7. Post-2020 Cap-and-Trade Program
   • Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
   • ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.

8. 20 percent reduction in GHG emissions from the refinery sector.


Between AB 32 (2006) and SB 32 (2016), the Legislature has codified some of the ambitious GHG reduction targets included within certain high-profile Executive Orders issued by the last two Governors. The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger’s 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code, § 38501, subdivision (i)). That Executive Branch document included the following GHG emission reduction targets: by year 2010, reduce GHG emissions to 2000 levels; by year 2020, reduce GHG emissions to 1990 levels; and by year 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of CalEPA leads the CAT, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan, and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Brown issued another Executive Order, B-30-15, which created a “new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.” SB 32 codified this target.
Notably, the Legislature has not yet set a 2050 target in the manner done for 2020 and 2030 through AB 32 and SB 32, though references to a 2050 target can be found in statutes outside the Health and Safety Code. In the 2015 legislative session, the Legislature passed SB 350 (Chapter 547, Statute of 2015) (discussed in more detail below). This legislation added language to the Public Utilities Code that essentially puts into statute the 2050 GHG reduction target already identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and, (ii) directing certain state agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code now states that “[t]he Legislature finds and declares [that] . . . [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification.” Furthermore, Section 740.12(b) now states that the California Public Utilities Commission (PUC), in consultation with ARB and the California Energy Commission (CEC), must “direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, . . . and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.”

Local

City of Orange

General Plan

The City of Orange General Plan sets forth the following goal and policies that are relevant to GHG emissions:

- **Goal 3.0**: Prepare for and adapt to the effects of climate change and promote practices that decrease the City’s contribution to climate change.
- **Policy 3.1**: Evaluate the potential effects of climate change on the City’s human and natural systems and prepare strategies that allow the City to appropriately respond and adapt.
- **Policy 3.2**: Develop and adopt a comprehensive strategy to reduce GHGs within Orange by at least 15 percent from current levels by 2020.

3.7.3 - Thresholds of Significance

CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (See Impact GHG-1 below.); or
- b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases (See Impact GHG-2 below.).
On December 5, 2008, the SCAQMD Governing Board adopted interim GHG significance thresholds. Although these thresholds are still “interim” thresholds at the time of this analysis, the thresholds represent the most applicable thresholds supported by substantial evidence. These thresholds are widely accepted by lead agencies in the region and by SCAQMD. The current SCAQMD interim thresholds are administered through the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA;
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant greenhouse gas emissions;
- Tier 3 consists of screening values, and the lead agency can choose either option #1 or option #2, but must be consistent with all projects within its jurisdiction. A project’s construction emissions are averaged over 30 years and are added to a project’s operational emissions. If a project’s emissions are under one of the following screening thresholds, then the project is less than significant:
  - Option #1: All residential or commercial land use types: 3,000 metric tons of carbon dioxide equivalents (MT CO₂e) per year and industrial land uses: 10,000 MT CO₂e, or
  - Option #2: Based on land use type—residential: 3,500 MT CO₂e per year; commercial: 1,400 MT CO₂e per year; industrial: 10,000 MT CO₂e; or mixed use: 3,000 MT CO₂e per year
- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined;
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures;
  - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MT CO₂e/SP/year for projects and 6.6 MT CO₂e/SP/year for plans; 2035 target: 3.0 MT CO₂e/SP/year for projects and 4.1 MT CO₂e/SP/year for plans.
- Tier 5 involves mitigation offsets to achieve target significance threshold.

If a project generates GHG emissions below the applicable thresholds described above, its GHG emissions would be considered a less than significant impact on the environment. To determine whether the project is significant, this analysis uses the residential-specific draft SCAQMD threshold:

- 3,500 MT CO₂e per year for annual operational emissions and amortized construction emissions.

### 3.7.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the project and provides mitigation measures where necessary.
Greenhouse Gas Emissions

**Impact GHG-1:** The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

**Impact Analysis**
Both construction period and operational period activities have the potential to generate GHG emissions. The project would result in direct and indirect emissions from construction activities, area sources, and mobile sources. CalEEMod (Version 2016.3.2) was used to estimate GHG emissions resulting from the project’s construction and operational activities.

**Construction**
The project would involve the construction of single-family residential units on the project site. Construction-related GHG emissions are primarily generated from fossil fuel combustion associated with construction equipment, material delivery trucks, and construction worker vehicles.

A summary of the estimated emissions that would result from construction of the project is shown in Table 3.7-2. As recommended by the SCAQMD, the amortized construction emissions were added to annual operational emissions to compare with SCAQMD’s applicable threshold of significance.

<table>
<thead>
<tr>
<th>Construction Activity</th>
<th>GHG Emissions (MT CO₂e per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Preparation/Grading—2020</td>
<td>7,858</td>
</tr>
<tr>
<td>Site Preparation/Grading—2021</td>
<td>3,826</td>
</tr>
<tr>
<td>Paving</td>
<td>49</td>
</tr>
<tr>
<td>Building Construction—2021</td>
<td>282</td>
</tr>
<tr>
<td>Building Construction—2022</td>
<td>831</td>
</tr>
<tr>
<td>Building Construction—2023</td>
<td>813</td>
</tr>
<tr>
<td>Building Construction—2024</td>
<td>400</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total Construction Emissions</strong></td>
<td><strong>14,082</strong></td>
</tr>
<tr>
<td><strong>Amortized over 30 years</strong></td>
<td><strong>469</strong></td>
</tr>
</tbody>
</table>

*Construction GHG emissions are amortized over the 30-year life of the project.*

Source: CalEEMod and FCS 2018, see Appendix F

**Operations**
Operational GHG emissions are generated by the following emission sources:

- Motor Vehicles—These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site;
• Natural Gas—These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas uses include heating water, space heating, dryers, stoves, or other uses;

• Indirect Electricity—These emissions refer to those generated by off-site power plants to supply electricity required for the project;

• Water Transport—These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site; and

• Waste—These emissions refer to the GHG emissions produced by decomposing waste generated by the project.

Table 3.7-3 presents the project’s annual long-term operational emissions by emissions source. The sum of annual operational emissions and amortized construction emissions are compared with the applicable threshold of significance.

**Table 3.7-3: Operational GHG Emissions—Unmitigated**

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>GHG Emissions (MT CO₂e per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>2</td>
</tr>
<tr>
<td>Energy</td>
<td>509</td>
</tr>
<tr>
<td>Mobile</td>
<td>698</td>
</tr>
<tr>
<td>Waste</td>
<td>82</td>
</tr>
<tr>
<td>Water</td>
<td>160</td>
</tr>
<tr>
<td>Amortized Construction</td>
<td>469</td>
</tr>
<tr>
<td>Total Project Emissions</td>
<td>1,921</td>
</tr>
<tr>
<td>SCAQMD Threshold</td>
<td>3,500</td>
</tr>
<tr>
<td>Exceed Significant?</td>
<td>No</td>
</tr>
</tbody>
</table>

Note:
MT CO₂e = metric tons of carbon dioxide equivalent
Source of emissions: CalEEMod and FCS 2018, see Appendix F
Source of thresholds: SCAMD 2008c.

As shown in Table 3.7-3, the proposed project’s long-term GHG emissions (along with amortized construction emissions) would generate approximately 1,921 MT CO₂e per year, which would not exceed the applicable SCAQMD’s draft thresholds of 3,500 MT CO₂e per year. Therefore, the project’s generation of GHG emissions would not result in a significant impact on the environment.

**Level of Significance Before Mitigation**
Less than significant impact.
Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Conflict with Plan, Policy, or Regulation that Reduces Emissions

Impact GHG-2: The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Analysis
At the time of this analysis, the City of Orange has not yet adopted a GHG reduction plan that the project can be evaluated against. In addition, the City has not completed the GHG inventory, benchmarking, and goal-setting process required to identify a reduction target and to take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97. Since no other local or regional climate action plan is in place, the project is assessed for its consistency with ARB’s adopted AB 32 2008 Scoping Plan. This would be achieved with an assessment of the project’s compliance with Scoping Plan measures.

Although the City of Orange General Plan does not meet the CEQA Guidelines 15064.4(b)(3) requirements for an applicable plan to reduce GHG emissions, it contains policies intended to reduce vehicle travel and energy use that would provide GHG reductions. Therefore, the project’s consistency with the General Plan policies is also assessed.

Scoping Plan
The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As shown in Table 3.7-4, the project is consistent with many of the strategies, while others are not applicable to the project.

Table 3.7-4: Scoping Plan Reduction Measures Consistency Analysis

<table>
<thead>
<tr>
<th>Scoping Plan Reduction Measure</th>
<th>Consistency/Applicability Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California’s program meets all applicable AB 32 requirements for market-based mechanisms.</td>
<td>Not applicable. Although the cap-and-trade system is ongoing, the project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the project.</td>
</tr>
</tbody>
</table>
Table 3.7-4 (cont.): Scoping Plan Reduction Measures Consistency Analysis

<table>
<thead>
<tr>
<th>Scoping Plan Reduction Measure</th>
<th>Consistency/Applicability Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. California Light-Duty Vehicle GHG Standards. Implement adopted standards and planned second phase of the program. Align ZEV, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.</td>
<td>Not directly applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing residences at the project site would be subject to the standards. Therefore, it is expected that trips made to the project site would be done with increasingly efficient vehicles.</td>
</tr>
<tr>
<td>3. Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.</td>
<td>Consistent. This is a measure for the State to increase its energy efficiency standards in new buildings. The project is required to build to the latest standards and would increase its energy efficiency through compliance.</td>
</tr>
<tr>
<td>4. Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.</td>
<td>Not applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. Southern California Edison is required to increase this percentage to 33 percent by the year 2020 pursuant to the Renewable Portfolio Standard. The project would purchase power that is comprised of a greater amount of renewable sources and could install renewable solar power systems that will assist the utility in achieving the mandate.</td>
</tr>
<tr>
<td>5. Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.</td>
<td>Not directly applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency. All fuel consumption associated with the project's construction and operational activities would use fuel that meets these standards.</td>
</tr>
<tr>
<td>6. Regional Transportation-Related GHG Targets. Develop regional GHG emissions reduction targets for passenger vehicles. This measure refers to SB 375.</td>
<td>Not applicable. The project is not related to developing GHG emission reduction targets.</td>
</tr>
<tr>
<td>7. Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.</td>
<td>Not directly applicable. The standards would be applicable to the light-duty vehicles that would access the project site.</td>
</tr>
<tr>
<td>8. Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.</td>
<td>Not applicable. The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.</td>
</tr>
<tr>
<td>9. Million Solar Roofs Program. Install 3,000 megawatts of solar-electric capacity under California’s existing solar programs.</td>
<td>Consistent. This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The project would comply with Title 24, which requires new non-residential buildings to be “solar ready” and requires solar photovoltaic systems for new homes. The project would not preclude the implementation of this strategy.</td>
</tr>
</tbody>
</table>
### Table 3.7-4 (cont.): Scoping Plan Reduction Measures Consistency Analysis

<table>
<thead>
<tr>
<th>Scoping Plan Reduction Measure</th>
<th>Consistency/Applicability Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.</td>
<td><strong>Not directly applicable.</strong> This is a statewide measure that cannot be implemented by a project applicant or lead agency. The standards phase in over model years 2014 through 2018 and would be applicable to the vehicles that access the project site.</td>
</tr>
<tr>
<td>11. Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce GHG emissions and provide other pollution reduction co-benefits. Reduce GHG emissions from fugitive emissions from oil and gas extraction, and gas transmission. Adopt and implement regulations to control fugitive CH₄ emissions and reduce flaring at refineries.</td>
<td><strong>Not applicable.</strong> This measure would apply to the direct GHG emissions at major industrial facilities. The project would not be considered an industrial land use.</td>
</tr>
<tr>
<td>12. High Speed Rail. Support implementation of a high-speed rail system.</td>
<td><strong>Not applicable.</strong> This is a statewide measure that cannot be implemented by a project applicant or lead agency. The proposed project would not preclude the implementation of this strategy.</td>
</tr>
<tr>
<td>13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California’s new and existing inventory of buildings.</td>
<td><strong>Consistent.</strong> The project would comply with the California Energy Code, and thus incorporate applicable energy efficiency features designed to reduce project energy consumption.</td>
</tr>
<tr>
<td>14. High GWP Gases. Adopt measures to reduce high GWP gases.</td>
<td><strong>Not applicable.</strong> This measure is applicable to the high GWP gases that would be used by sources with large equipment (such as in commercial air conditioning and commercial refrigerators) that are not part of this residential project.</td>
</tr>
<tr>
<td>15. Recycling and Waste. Reduce CH₄ emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero waste.</td>
<td><strong>Consistent.</strong> The project would not contain a landfill. The State is to help increase waste diversion. The project would reduce waste with implementation of state mandated recycling and reuse mandates.</td>
</tr>
<tr>
<td>16. Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.</td>
<td><strong>Not applicable.</strong> The project site is not forested; therefore, no preservation is possible.</td>
</tr>
<tr>
<td>17. Water. Continue efficiency programs and use cleaner energy sources to move and treat water.</td>
<td><strong>Consistent.</strong> This is a measure for state and local agencies. However, the project would comply with the California Green Building Standards Code and the California Updated Model Landscape Ordinance. With adherence to these regulations, the project will consume energy and water in an efficient manner.</td>
</tr>
<tr>
<td>18. Agriculture. In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.</td>
<td><strong>Not applicable.</strong> The project site is not designated or in use for agriculture purposes. No grazing, feedlot, or other agricultural activities that generate manure occur on-site or are proposed to be implemented by the project.</td>
</tr>
</tbody>
</table>

Source of Project Consistency or Applicability: FCS.
General Plan Compliance

As part of the City of Orange’s 2010 General Plan, the Natural Resources Element includes goals and policies related to reducing GHG emissions and responding to climate change listed below.¹

- **Goal 3.0:** Prepare for and adapt to the effects of climate change and promote practices that decrease the City’s contribution to climate change.
- **Policy 3.1:** Evaluate the potential effects of climate change on the City’s human and natural systems and prepare strategies that allow the City to appropriately respond and adapt.
- **Policy 3.2:** Develop and adopt a comprehensive strategy to reduce GHGs within Orange by at least 15 percent from current levels by 2020.

The project would be consistent with the General Plan designation for the project site for “Low Density Residential,” “Resource Area,” and “Open Space.” Thus, the project would help preserve areas of the City designated for “Resource Area” and “Open Space,” which would be consistent with Goal 3.0 to decrease the City’s contribution to climate change. In other words, by preserving a majority of the project site as open space and recreational uses, the project would avoid additional GHG emissions from those areas and provide recreational opportunities to the proposed and nearby existing residents. Furthermore, the project site is located in an infill area, which would add residential density to the local area. The increased density of the local neighborhood would help support the Southern California Association of Governments’ (SCAG) regional land use and transportation GHG reduction goals mandated by SB 375, which relies on additional residential density coupled with nearby amenities to reduce vehicle miles traveled and encourage alternative modes of transportation.

Given that the project would comply with the land use designations of the project site, increase residential density in a developed area, and preserve open space and recreational land—which would reduce GHG emissions produced on those areas—the project would be consistent with the goals and policies adopted for the purpose of reducing the emissions of GHGs contained within the City’s General Plan. Furthermore, it is not anticipated that the project would conflict with an applicable GHG reduction plan.

Summary

The project would not conflict with the ARB Scoping Plan or the City of Orange General Plan. Furthermore, as described in Impact GHG-1, the project’s combined long-term operational and amortized construction emissions would not exceed the applicable SCAQMD’s threshold of significance. Although these thresholds had not been formally adopted at the time of this analysis, they are considered the allowable amount of emissions for each project, under which the project would not impede regional and state GHG reduction goals. Therefore, considering the aforementioned information, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, this impact would be less than significant.

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Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.
3.8 - Hazards and Hazardous Materials

3.8.1 - Introduction

This section describes the existing hazards and hazardous materials setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Phase I Environmental Site Assessment prepared by Michael Brandman Associates and the Phase II Environmental Site Assessment prepared by Tait Environmental Services. Both reports are provided in Appendix F.

3.8.2 - Environmental Setting

Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic—causes human health effects.
- Ignitable—has the ability to burn.
- Corrosive—causes severe burns or damage to materials.
- Reactive—causes explosions or generates toxic gases.

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If handled, disposed, or otherwise handled improperly, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Phase I/II Environmental Site Assessments

Three previous Phase I or Phase II Environmental Site Assessments (Phase I/II ESAs) were prepared for the project site in 2000, 2009, and 2011. Because the 2009 Phase I ESA was prepared after the 2000 Phase I ESA, it provided a more accurate and current assessment of potential hazards and, thus its findings take precedence. The findings of the 2009 Phase I ESA and 2011 Phase II ESA are summarized in Table 3.8-1.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Brandman Associates—Phase I ESA (2009)</td>
<td>1. All appropriate safeguards and analysis shall be conducted to mitigate any potential risks associated with the proposed project in regards to the adjacent former Villa Park Landfill. California Code of Regulations (CCR), Title 27, Section 21190, Postclosure Land Use applies to all construction within 1,000 feet of the boundary of any disposal area to prevent gas migration into buildings. Examples of safeguards include a geomembrane between the concrete floor slab and subgrade; periodic methane gas monitoring inside all buildings and underground utilities; a subsurface venting system beneath each building; and automatic methane sensors beneath and inside each building. (CCR Title 27, Section 21190 is included as an attachment to the County of Orange Health Care Agency correspondence contained in Appendix E.) Compatibility of proposed project land uses within 1,000 feet of the boundary of the former Villa Park Landfill shall be properly evaluated.</td>
</tr>
<tr>
<td>2. Design plans for: 1) any occupied structures within 1,000 feet of the landfill boundary; and 2) structural systems to prevent gas-related hazards are required to be reviewed and approved by the County of Orange Health Care Agency/Local Enforcement Agency.</td>
<td></td>
</tr>
<tr>
<td>3. The proposed occupied structures shall be situated strategically to allow for future remediation of any potential landfill gas migration.</td>
<td></td>
</tr>
<tr>
<td>4. Prior to commencement of any construction activities that would impact the landfill or related gas monitoring equipment, the City Engineer shall consult with and obtain approval from the Orange County Integrated Waste Management Department for the relocation of any monitoring wells or probes that would be impacted by development on the project site.</td>
<td></td>
</tr>
<tr>
<td>5. Mitigation Measures 5.6-1 through 5.6-5, as outlined in the EIR for the Sully Miller Fieldstone Communities Project, Hazards and Hazardous Materials Section 5.6, shall be incorporated into proposed project design and Mitigation Monitoring and Reporting Program.</td>
<td></td>
</tr>
<tr>
<td>6. Written and verbal disclosures regarding landfill gas shall be provided to lot and homeowners within 1,000 feet of the landfill boundary.</td>
<td></td>
</tr>
<tr>
<td>7. All environmental investigations, sampling and/or remediation for the project site shall be conducted under a Workplan approved and overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup.</td>
<td></td>
</tr>
<tr>
<td>8. Further testing and analysis shall be conducted for the on-site Potential Areas of Environmental Concern identified in Section 7.1 of the 2000 Geomatrix Phase I ESA that have not yet been addressed and remediated:</td>
<td></td>
</tr>
<tr>
<td>• Soils beneath the former diesel-affected soil stockpile located previously at the western end of the site: Concentrations of total petroleum hydrocarbons quantified against a diesel standard (TPHd) occurring above the regulatory clean-up level of 1,000 mg/kg.</td>
<td></td>
</tr>
<tr>
<td>• Soils within the western sidewall of a former emulsion tank UST excavation located in the central portion of the site: Concentrations of TPHd slightly above the regulatory clean-up level.</td>
<td></td>
</tr>
<tr>
<td>• On-site areas that previously included agriculture: Level of pesticide and herbicide residue in the soil.</td>
<td></td>
</tr>
<tr>
<td>• Asbestos or asbestos-containing materials: Reportedly buried on-site within a designated area.</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.8-1 (cont.): Previous Phase I/II Environmental Site Assessment Findings

<table>
<thead>
<tr>
<th>Firm</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tait Environmental Services—Phase II ESA</td>
<td>1. One soil vapor sample (C-6-5@15’) collected in Planning Area C contained trichloroethylene (TCE) at a concentration that could potentially pose a significant human health risk to users of residential buildings located in the area where sample C-6-5@15’ was collected. Mitigation and/or remedial actions to address potential vapor intrusion risks to residential users’ potential risk may be needed. The need for the mitigation and/or remedial actions will depend on the final grade elevations for the area of concern (the greater the distance between the detected TCE-impacted soil vapor and the final grade, the less chance that mitigation and/or remedial actions will be required). Mitigation measures could include vapor barriers or passive/active venting systems beneath Site buildings in the affected area. Remedial actions could include mechanical stripping of TCE-impacted soil in the affected area.</td>
</tr>
<tr>
<td>(2011)</td>
<td>2. Five soil vapor samples (C-1-1@15’, C-1-3@15’, C-1-6@8’, C-3-2@15’, and C-6-7@15’) collected in Planning Area C contained methane at concentrations below one percent by volume. The possibility exists that this methane could infiltrate future Site buildings in the affected areas and concentrate in rooms with limited air exchanges. Should this occur, the methane concentration could exceed its lower explosive limit (5% by volume), creating a potentially explosive mixture. Mitigation and/or remedial actions to address this potential risk may be needed. The need for the mitigation and/or remedial actions will depend on the final grade elevations for the area of concern (the greater the distance between the detected methane containing soil vapor and the final grade, the less chance that mitigation and/or remedial actions will be required). Mitigation measures could include vapor barriers or passive/active venting systems beneath Site buildings in the affected area. Remedial actions could include mechanical stripping of methane-containing soil vapor in the affected areas.</td>
</tr>
<tr>
<td></td>
<td>3. None of the soil matrix core samples collected at the Site contained detectable concentrations of VOCs or pesticide compounds that could potentially pose a significant human health risk to future Site users. Accordingly, TAIT makes no recommendation for remedial actions and/or mitigation measures.</td>
</tr>
<tr>
<td></td>
<td>4. Fourteen soil matrix core samples (A-5-3@5’, C-1-1@5’, C-1-1@10’, C-1-3@5’, C-1-3@10’, C-1-4@5’, C-1-4@8’, C-1-5@5’, C-1-5@8’, C-1-6@5’, C-3-1@5’, C-3-1@10’, C-3-2@5’, and C-3-2@10’) collected in Planning Areas C and D (both planned residential areas) contained TPH-mo at concentrations that exceeded the respective ESL. Nine of these samples also contained TPH-d at concentrations exceeding the respective ESL. Remedial actions to address potential soil ingestion and dermal contact risk to future Site users may be needed. The need for the remedial actions will depend on final surface cover and final grade elevations for the areas of concern (the greater the distance between the detected TPH-impacted soil and the final grade, the less chance that remedial actions will be required). Remedial actions could include excavation and off-site disposal.</td>
</tr>
</tbody>
</table>

Source: FCS, 2016.

It should be noted that the 2011 Tait Phase II ESA was prepared to address the findings of the 2009 Phase I ESA by way of subsurface investigation and sampling and, thus, its findings are most relevant
in terms of identifying potential hazards to future occupants and users of the site. The key findings and potential risks from the 2011 Tait Phase II ESA are as follows:

- Potential vapor intrusion of trichloroethylene (TCE) and methane into future dwelling units
- Elevated petroleum hydrocarbon concentrations in soil

Tait Environmental Services determined that all other potential hazards and hazardous materials that may have previously been located on the project site as indicated by the 2000 and 2009 Phase I ESAs no longer exist, including asbestos.

**Database Search**

FCS performed a search of the State Water Resources Control Board GeoTracker database to identify known hazardous materials sites in the project vicinity. The results are summarized in Table 3.8-2.

<table>
<thead>
<tr>
<th>Site</th>
<th>Address</th>
<th>Relationship to Project Site</th>
<th>Database(s)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villa Park Landfill</td>
<td>5545 E. Santiago Canyon Road</td>
<td>Adjacent (west)</td>
<td>Land Disposal Site</td>
<td>Closed With Monitoring (2014)</td>
</tr>
<tr>
<td>Orange County Fire Station No. 23</td>
<td>5020 E. Santiago Canyon Road</td>
<td>0.25 mile (southwest)</td>
<td>LUST Cleanup Site</td>
<td>Closed (1999)</td>
</tr>
<tr>
<td>Diocese of Orange</td>
<td>7845 E. Santiago Canyon Road</td>
<td>0.5 mile (east)</td>
<td>LUST Cleanup Site</td>
<td>Closed (1999)</td>
</tr>
</tbody>
</table>

Note: LUST = Leaking Underground Storage Tank

The site of most concern to the project site is the adjacent Villa Park Landfill, which is discussed in detail in the following section. The remaining two sites were leaking underground tank sites that are listed as “Closed” signifying that they have been remediated to the satisfaction of the regulatory agency.

**Villa Park Landfill**

The Villa Park Landfill site was originally a sand and gravel mine until 1962 when the site was repurposed as a landfill. The Villa Park Landfill was operated by Orange County (OC) Waste & Recycling as a Class III municipal solid waste landfill from 1962 to 1966. The landfill property is approximately 18 acres, of which approximately 11 acres were used for waste disposal. The landfill was closed in 1966 in accordance with closure regulation in effect at the time. OC Waste & Recycling has since been implementing post-closure monitoring and maintenance of the Villa Park Landfill.

The Villa Park Landfill is not equipped with an engineered artificial liner or with a leachate collection and removal system because this landfill predates regulatory requirements for these measures. An active gas collection system has been installed at the site to control, collect, and flare landfill gas.
generated in the buried refuse. Groundwater monitoring, vadose zone perimeter gas probe monitoring, and site maintenance is conducted by OC Waste & Recycling on a regular basis.

**Hazardous Building Materials**

**Asbestos**

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly used as an acoustic insulator, thermal insulation, fireproofing, and in other building materials. Asbestos is made up of microscopic bundles of fibers that may become airborne when asbestos-containing materials are damaged or disturbed. When these fibers get into the air, they may be inhaled into the lungs, where they can cause significant health problems. The California Occupational Health and Safety Administration (CalOSHA) defines asbestos-containing construction materials as any material that contains more than 0.1 percent asbestos by weight.

The Phase II ESA determined that asbestos is not present on the project site.

**Lead**

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably in paint. Lead may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Primary sources of lead exposure are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil. Both the United States Environmental Protection Agency (USEPA) and the California Department of Health Services define lead paint as containing a minimum of 0.5 percent lead by weight. Lead-containing waste materials with a concentration greater than 0.1 percent are considered hazardous waste by California law. Both the federal and California OSHA maintain regulations regarding the disturbance of paints that contain any amount of lead.

The Phase II ESA determined that lead-containing materials are not present on the project site.

**Materials Recycling**

Approximately 5 acres in the southeastern portion of the project site were used as a materials recycling area. Within this area, an apparatus was used for the crushing of boulders, bricks, rocks, etc. for recycling. Additionally, operations that provide for the cement treatment of base materials occurred within this area. Access to the materials recycling area is from a controlled entrance along East Santiago Canyon Road. Historically, the materials generated by this operation have been used on and transported off the project site.

**Backfilling Operation**

The project site has been previously backfilled as a permitted use to restore previously mined portions of the site. As previously noted, the project site was used from 1919 to 1995 for surface mining of sand, gravel, and other aggregates. Previously mined portions of the project site were used for residue silt deposition, otherwise known as silt ponds. The backfilling operation addressed both mined and silt pond areas.
Radon

Radon is a carcinogenic radioactive gas resulting from the natural breakdown of uranium in soil, rock, and water. Radon gas enters a building through cracks in foundations and walls. Once inside the building, radon decay products may become attached to dust particles and inhaled, or the decayed radioactive particles alone may be inhaled and cause damage to lung tissue. The EPA has established safe radon exposures to threshold of 4 picocuries per liter of air (pCi/l). Table 3.8-3 summarizes indoor radon test results for several zip codes in the project vicinity.

### Table 3.8-3: Indoor Radon Testing Summary

<table>
<thead>
<tr>
<th>Zip Code (Area)</th>
<th>Total Indoor Radon Samples</th>
<th>No. Exceeding 4.0 pCi/l</th>
<th>Percent Exceeding 4.0 pCi/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>92807 (Anaheim Hills)</td>
<td>59</td>
<td>5</td>
<td>8.5</td>
</tr>
<tr>
<td>92861 (Villa Park)</td>
<td>12</td>
<td>4</td>
<td>33.3</td>
</tr>
<tr>
<td>92867 (Orange)</td>
<td>49</td>
<td>4</td>
<td>8.2</td>
</tr>
<tr>
<td>92869 (Orange Park Acres)*</td>
<td>39</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>159</strong></td>
<td><strong>14</strong></td>
<td><strong>8.8</strong></td>
</tr>
</tbody>
</table>

* Project site is located in the 92869 zip code.

Source: California Department of Public Health, 2016.

As shown in Table 3.8-3, the California Department of Public Health has conducted 159 indoor radon tests in four zip codes in the project vicinity. Of this figure, 14 yield concentrations in excess of 4.0 pCi/l, which is equivalent to 8.8 percent. The California Department of Public Health indicates that areas between 7.0 to 20.0 percent have a “moderate” radon potential.

### 3.8.3 - Regulatory Framework

#### Federal

**Hazardous Materials Laws**

The EPA is the lead agency responsible for enforcing federal laws and regulations governing hazardous materials that affect public health or the environment. The major federal laws and regulations enforced by the EPA include the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act.

In 1976, the RCRA was enacted to provide a general framework for the EPA to regulate hazardous waste from the time it is generated until its ultimate disposal. In accordance with RCRA, facilities that generate, treat, store, or dispose of hazardous waste are required to ensure that the wastes are properly managed from “cradle to grave.”

Also in 1976, the Toxic Substances Control Act was enacted to provide the EPA authority to regulate the production, importation, use, and disposal of chemicals that pose a risk of adversely impacting
public health and the environment, such as polychlorinated biphenyls (PCBs), asbestos-containing materials, and lead-based paint. The Toxic Substances Control Act also gives the EPA authority to regulate the cleanup of sites contaminated with specific chemicals, such as PCBs.

In 1980, CERCLA, commonly known as the Superfund, was enacted to ensure that a source of funds was available for the EPA to remediate uncontrolled or abandoned hazardous materials release sites that pose a risk of adversely impacting public health and the environment. Prohibitions and requirements regarding closed or abandoned hazardous waste sites and liability standards for responsible parties were also established by CERCLA. In 1986, the Superfund Amendments and Reauthorization Act amended CERCLA to increase the Superfund budget, modify contaminated site cleanup criteria and schedules, and revise settlement procedures.

Other relevant federal laws include the Hazardous and Solid Waste Amendments Act regarding hazardous waste management; the Toxic Substances Control Act, pertaining to the tracking and screening of industrial chemicals; and the Federal Insecticide, Fungicide, and Rodenticide Act, which controls pesticide distribution, sale, and use. Applicable federal regulations and guidelines are contained primarily in Code of Federal Regulations (CFR) Titles 10, 29, 40, and 49.

**Comprehensive Environmental Response, Compensation and Liability Act**

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduces active Federal involvement to emergency response, site remediation, and spill prevention, most notably with the Superfund program. The Act was intended to be comprehensive in encompassing both the prevention of and response to uncontrolled hazardous substances releases. The Act deals with environmental response, providing mechanisms for reacting to emergencies and chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for, and respond to, failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

**State**

**California Health and Safety Code**

The California Environmental Protection Agency (CalEPA) has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Sections 25531, et seq. incorporates the requirements of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. Health and Safety Code Section 25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan. The plan must be submitted to the appropriate local authorities, the designated local administering agency, and the EPA for review and approval.

**CEQA and the Cortese List**

The Cortese List (Hazardous Waste and Substances Site List) is a planning document used by the State, local agencies, and developers to comply with CEQA requirements to consider Government Code Section 5962.5 in evaluating proposed development projects. Section 65962.5 states that:
The list should contain all hazardous waste facilities subject to corrective action, all hazardous waste property or border zone property designations, all information received on hazardous waste disposals on public land, all hazardous substance release sites listed pursuant to Government Code Section 25356, and all sites that were included in the former Abandonment Site Assessment Program.

**California Environmental Protection Agency (CalEPA)**

Government Code Section 65962.5 requires CalEPA to develop a Cortese List at least annually. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information on the list, and other local and state government agencies are required to provide additional information. CalEPA operates the Air Resources Board, the Department of Pesticide Regulation, the DTSC, the Integrated Waste Management Board, the Office of Environmental Health Hazard Assessment, and the State Water Resources Control Board (SRWQCB). The function of each of these six offices is discussed below.

**Air Resources Board (ARB):** To promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants in recognition and consideration of the effects on the economy of the State.

**Department of Pesticide Regulation (DPR):** Regulates all aspects of pesticide sales and use to protect the public health and the environment for the purpose of evaluating and mitigating impacts of pesticide use, maintaining the safety of the pesticide workplace, ensuring product effectiveness, and encouraging the development and use of reduced-risk pest control practices.

**Department of Toxic Substances Control (DTSC):** The Department’s mission is to restore, protect, and enhance the environment, to ensure public health, environmental quality, and economic vitality by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention. DTSC protects residents from exposures to hazardous wastes. DTSC operates programs to:

- Deal with the aftermath of improper hazardous waste management by overseeing site cleanups.
- Prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly.
- Take enforcement actions against those who fail to manage hazardous wastes appropriately.
- Explore and promote means of preventing pollution, and encourage reuse and recycling.
- Evaluate soil, water, and air samples taken at sites, and develop new analytical methods.

**Cal Recycle:** Protects the public health and safety and the environment through waste prevention, waste diversion, and safe waste processing and disposal. Cal Recycle is responsible for managing California’s solid waste stream. Cal Recycle is helping California divert waste from landfills by:

- Developing waste reduction programs.
- Providing public education and outreach.
• Assisting local governments and businesses.
• Fostering market development for recyclable materials.
• Encouraging used oil recycling.
• Regulating waste management facilities.
• Cleaning up abandoned and illegal dumpsites.

Office of Environmental Health Hazard Assessment (OEHHA): The OEHHA is responsible for developing and providing risk managers in state and local government agencies with toxicological and medical information relevant to decisions involving public health. OEHHA also works with federal agencies, the scientific community, industry, and the general public on issues of environmental as well as public health. Specific examples of OEHHA responsibilities include:

• Developing health-protective exposure standards for air, water, and land to recommend to regulatory agencies, including ambient air quality standards for the Air Resources Board and drinking water chemical contaminant standards for the Department of Health Services.

• Assessing health risks to the public from air pollution, pesticide and other chemical contamination of food, seafood, drinking water, and consumer products.

• Providing guidance to local health departments, environmental departments, and other agencies with specific public health problems, including appropriate actions to take in emergencies that may involve chemicals.

State Water Resources Control Board (SWRCB): Preserves and enhances the quality of California’s water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. The SRWQCB maintains the Leaking Underground Storage Tank Information System Database, which contains information on registered leaking underground storage tanks in the State.

California Occupational Safety and Health Agency (CalOSHA)
CalOSHA sets and enforces standards that insure safe and healthy working conditions for California’s workers. The Division of Occupational Safety & Health is charged with the jurisdiction and supervision over workplaces in California that are not under federal jurisdiction. CalOSHA regulates issues involving unsafe workplace conditions, worker exposure to chemicals, illness due to workplace exposure, or improper training.

Local

City of Orange

General Plan
The City of Orange General Plan sets forth the following goals and policies relevant to hazards and hazardous materials.

Public Safety Element

• Goal 4.0: Minimize risks to life, property, and the environment associated with producing, using, storing, or transporting hazardous materials.
3.8.4 - Methodology

The following analysis is based, in part, on the City of Orange General Plan, the City of Orange General Plan EIR, and a database search conducted by FCS on December 14, 2016. The information obtained from these resources and other relevant materials was reviewed and evaluated to establish potential presence of hazards and hazardous materials on the project site.

Three previous Phase I or Phase II Environmental Site Assessments (Phase I/II ESAs) were prepared for the project site in 2000, 2009, and 2011. Because the 2009 Phase I ESA was prepared after the 2000 Phase I ESA, it provided a more accurate and current assessment of potential hazards and, thus its findings take precedence. The 2009 Phase I ESA and 2011 Phase II ESA are provided in Appendix F.

3.8.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hazards and hazardous materials impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working the project area? (Refer to Section 7, Effects Found Not To Be Significant.)

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (Refer to Section 7, Effects Found Not To Be Significant.)

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

3.8.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Routine Transport, Use or Disposal of Hazardous Materials

| Impact HAZ-1: | The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. |

Impact Analysis

Short-term Construction Impacts

During construction of the residential area and related infrastructure, staging areas, trail, and other proposed improvements, hazardous materials would be handled on the project site. These hazardous materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products used to operate and maintain construction equipment and vehicles. This handling of hazardous materials would be a temporary activity and coincide with the short-term construction phase of the proposed project. Although hazardous materials associated with the operation and maintenance of construction equipment and vehicles may be stored on the project site, it is expected that only the amounts needed would be kept on-site, and any handling of such materials will be limited in both quantities and concentrations. Removal and disposal of hazardous materials from the project site would be conducted by a permitted and licensed contractor. Any handling, transporting, use, or disposal would comply with applicable laws, policies, and programs set forth by various federal, state, and local agencies and regulations, including the EPA, RCRA, Caltrans, and the local Hazardous Materials Program. Required compliance with applicable hazardous material laws and regulations would ensure that construction-related hazardous material use would not result in significant impacts.
**Long-term Operational Impacts**

During the operational phase of the project, hazardous materials may be handled on the project site. Because of the nature of the project, hazardous materials used on-site may vary, but would likely be limited to fertilizers, herbicides, pesticides, solvents, cleaning agents, and similar materials used for daily residential operations and maintenance activities. These types of materials are common and represent a low risk to people and the environment when used as intended. Therefore, long-term operational impacts associated with hazardous materials would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Risk of Upset**

| Impact HAZ-2: | The project may create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. |

**Impact Analysis**

The project site previously supported agricultural and mining activities and is adjacent to the closed Villa Park Landfill. Therefore, there is the potential that the development and operation of the proposed project may expose persons to hazards from these past uses.

As previously discussed, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of Total Petroleum Hydrocarbons in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the California Department of Toxic Substances Control (DTSC) or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

The project site is located in a “moderate” area for indoor radon exposure in excess of 4.0 pCi/l. Indoor radon exposure is most susceptible in subsurface, enclosed spaces such as basements or parking garages. The proposed residential uses are anticipated to employ conventional slab on-grade construction and would not feature subsurface, enclosed spaces. As such, impacts related to radon would be less than significant.
Level of Significance Before Mitigation
Potentially significant impact.

Mitigation Measures

MM HAZ-2a  The proposed enclosed structures shall be situated strategically to allow for future remediation of any potential landfill gas migration. Prior to issuance of building permits for dwelling units in areas of the project site where vapor intrusion has the potential to occur, the applicant shall prepare and submit plans to the City of Orange identifying vapor intrusion abatement measures for trichloroethylene (TCE) and methane. Areas where vapor intrusion has the potential to occur are those identified in the Phase II Environmental Site Assessment. Such abatement measures may include but are not limited to vapor barriers or passive/active venting systems, as determined by the appropriate regulatory agency. The approved abatement measures shall be incorporated into project building plans. Design plans for: 1) any occupied structures within 1,000 feet of the landfill boundary; and/or 2) structural systems to prevent gas-related hazards are required to be reviewed and approved by the County of Orange Health Care Agency/Local Enforcement Agency.

MM HAZ-2b  Prior to issuance of grading permits, the project applicant shall retain a qualified hazardous materials contractor to remove all soil containing Total Petroleum Hydrocarbons in excess of residential development standards set forth by the California Department of Toxic Substances Control (DTSC) or other applicable regulatory agency. Soil removal and disposal shall occur in accordance with DTSC (or other applicable agency) guidelines. The applicant shall submit documentation to the City of Orange in the form of confirmatory soil sampling results verifying that this mitigation measure was successfully implemented as part of the grading permit application for this property. All environmental investigations, sampling and/or remediation for the project site shall be conducted under a workplan approved and overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup, such as the Regional Water Quality Control Board (RWQCB). As part of proper construction operations and maintenance, any construction areas that are found to contain contaminated soils shall be excluded using a security fence. All contaminated soils shall then be excavated and disposed of off-site in accordance with the rules and regulations of: US Department of Transportation (USDOT), USEPA, CalEPA, CalOSHA, and any local regulatory agencies. All retention and detention features used during construction would be lined to prevent infiltration through contaminated soils. Post-construction retention features shall be lined to prevent infiltration of groundwater.

MM HAZ-2c  Prior to commencement of any construction activities that would impact existing landfill or related gas monitoring equipment, the project applicant shall contact the City Engineer to consult with and obtain approval from the Orange County Integrated Waste Management Department for the relocation of any monitoring wells or probes that would be impacted by development on the project site.
**Level of Significance After Mitigation**
Less than significant impact.

**Exposure of Schools to Hazardous Materials**

<table>
<thead>
<tr>
<th>Impact HAZ-3:</th>
<th>The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.</th>
</tr>
</thead>
</table>

**Impact Analysis**
The Salem Lutheran Church and School (6500 E. Santiago Canyon Road, Orange, CA 92869) is located within 0.25 mile of the project site. The proposed project would develop residential, open space, and recreational uses on the project site. None of these uses would involve routine use of hazardous or acutely hazardous materials, substances or waste. Additionally, the proposed project’s uses would not involve activities that would routinely emit toxic air contaminants (e.g., diesel particulate matter).

In summary, the proposed land uses and development within 0.25 mile of an existing or proposed school would not emit or handle substantial amounts of hazardous materials or waste. As such, impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Government Code Section 65962.5 Hazardous Materials Sites**

<table>
<thead>
<tr>
<th>Impact HAZ-4:</th>
<th>The project may be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.</th>
</tr>
</thead>
</table>

**Impact Analysis**
The project site is not listed on any hazardous materials databases compiled pursuant to Government Code Section 65962.5.

The closed Villa Park Landfill is immediately adjacent to the project site and is listed on hazardous materials databases compiled pursuant to Government Code Section 65962.5. The landfill employs an active gas collection system to control, collect, and flare landfill gas generated in the buried refuse. Because of its age, the landfill is unlined and does not have a leachate collection and removal system. OC Waste & Recycling conducts groundwater monitoring, vadose zone perimeter gas probe monitoring, and site maintenance.
As previously discussed, the Phase II ESA indicated that elevated levels of methane had the potential to occur in project site soils and set forth recommended mitigation (see Mitigation Measure HAZ-2a) to abate this hazard to a level of less than significant.

Finally, the proposed project would locate open space and recreation uses within the portion of the site that abuts the Villa Park Landfill. These uses would serve as a buffer between the former landfill and the residential uses that would be located in the eastern portion of the site. Therefore, development and operation of the proposed project would not expose persons to residual hazardous materials from past uses of the Villa Park Landfill. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Potentially significant impact.

**Mitigation Measures**
Implement Mitigation Measure HAZ-2a.

**Level of Significance After Mitigation**
Less than significant impact.

**Emergency Response and Evacuation**

<table>
<thead>
<tr>
<th>Impact HAZ-5:</th>
<th>The project may impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</th>
</tr>
</thead>
</table>

**Impact Analysis**
The proposed project would take vehicular access from E. Santiago Canyon Road via a full-access signalized driveway aligned with Nicky Way. The Fire Department noted that the project would be required to provide two points of emergency access in accordance with Fire Code requirements. Mitigation Measure HAZ-5 requires the applicant to demonstrate compliance with all Fire Code emergency access requirements prior to issuance of building permits.

Additionally, the proposed project would not modify any surrounding roadways in a manner that could impair emergency response or evacuation (road closures, lane narrowing, etc.). Thus, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be less than significant.

**Level of Significance Before Mitigation**
Potentially significant impact.

**Mitigation Measures**

**MM HAZ-5**
Prior to issuance of the first building permit, the applicant shall prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code. The approved plan shall be incorporated into the proposed project.
Level of Significance After Mitigation
Less than significant impact.

Wildland Fires

Impact HAZ-6: The project may expose persons or property to wildland fire hazards.

Impact Analysis
The eastern portion of the project site abuts Santiago Oak Regional Park and contains the wooded Santiago Creek Corridor. The Orange Fire Department noted that the project site is located at the wildland/urban interface and indicated that the project would be subject to the City’s fuel modification requirements. The project proposes to strategically place approximately 68.5 acres of open space/grasslands and greenway with managed vegetation within the western, northern, and eastern portions of the project site, to provide sufficient protection from wildland fires, and alleviate related impacts. However, Mitigation Measure HAZ-6 will be applied to require the applicant to prepare a Fuel Modification Plan and submit it to the City of Orange for review and approval prior to issuance of building permits, consistent with the Fire Departments recommendation.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures

MM HAZ-6 Prior to issuance of the first building permit, the applicant shall retain a qualified fire safety consultant to prepare a Fuel Modification Plan for the proposed project. The plan shall identify defensible space around dwelling units in accordance with City requirements. The plan shall be submitted to the City of Orange for review and approval. The approved plan shall be incorporated into the proposed project.

Level of Significance After Mitigation
Less than significant impact.
3.9 - Hydrology and Water Quality

3.9.1 - Introduction

This section describes the existing hydrology and water quality setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Preliminary Hydrology and Hydraulic Report prepared by Fuscoe Engineering, which is provided as Appendix K.

3.9.2 - Environmental Setting

Climate and Meteorology

The coastal plain of Orange County is characterized by a Mediterranean climate, with mild winters and warm summers. Temperatures range from an average low of 46.9 degrees Fahrenheit (°F) in December to an average high of 87.1°F in August. Average rainfall is 14.09 inches. Table 3.9-1 summarizes local meteorology, as measured in Anaheim, California (approximately 4.35 miles south of the project site).

Table 3.9-1: Orange Meteorological Summary

<table>
<thead>
<tr>
<th>Month</th>
<th>Average Temperature (°F)</th>
<th>Precipitation (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>January</td>
<td>47.5</td>
<td>70.0</td>
</tr>
<tr>
<td>February</td>
<td>48.2</td>
<td>70.0</td>
</tr>
<tr>
<td>March</td>
<td>50.4</td>
<td>72.4</td>
</tr>
<tr>
<td>April</td>
<td>52.8</td>
<td>74.7</td>
</tr>
<tr>
<td>May</td>
<td>57.3</td>
<td>77.1</td>
</tr>
<tr>
<td>June</td>
<td>60.5</td>
<td>80.1</td>
</tr>
<tr>
<td>July</td>
<td>64.2</td>
<td>85.2</td>
</tr>
<tr>
<td>August</td>
<td>64.5</td>
<td>87.1</td>
</tr>
<tr>
<td>September</td>
<td>62.7</td>
<td>86.5</td>
</tr>
<tr>
<td>October</td>
<td>57.7</td>
<td>81.2</td>
</tr>
<tr>
<td>November</td>
<td>51.8</td>
<td>75.4</td>
</tr>
<tr>
<td>December</td>
<td>46.9</td>
<td>69.7</td>
</tr>
<tr>
<td>Annual Average</td>
<td>55.4</td>
<td>77.4</td>
</tr>
</tbody>
</table>

Note: Measurements taken at the Anaheim weather station between August 1, 1989 and June 9, 2016. Source: Western Regional Climate Center, 2016.
Surface Water Bodies

The project site is located within the Santiago Creek watershed, which is tributary to the Santa Ana River. Both watersheds are discussed separately.

Santiago Creek

The Santiago Creek watershed is approximately 110 square miles and encompasses portions of the cities of Anaheim, Orange, Santa Ana, and Villa Park, as well as the northern Santa Ana Mountains in unincorporated Orange County. The creek originates on the slopes of Santiago Peak and Modjeska Peak in the Santa Ana Mountains, and meanders approximately 29 miles to its confluence with the Santa Ana River. The Santiago Creek watershed is depicted in Exhibit 3.9-1.

The creek is impounded at Irvine Lake by Santiago Dam, constructed in 1931. Most of the creek’s flows are diverted at Irvine Lake for potable use by the Serrano Water District, and non-potable use by the Irvine Ranch Water District. Downstream of Santiago Dam, the creek is usually dry outside of the wet season.

Approximately 3.5 miles downstream of Santiago Dam, the creek is impounded again at the Villa Park Reservoir by the Villa Park Dam, constructed in 1963. The Villa Park Reservoir is a flood control facility and does not store water for potable or non-potable use. Between Villa Park Dam and the Santiago Creek Recharge Basin, the waterway is contained in a natural channel. From the recharge basin to the Santa Ana River, the creek is mostly contained in a concrete-lined channel.

Santa Ana River

The Santa Ana River watershed is approximately 2,650 square miles and encompasses portions of Los Angeles, Riverside, San Bernardino, and Orange counties. The river originates in the San Bernardino Mountains and discharges into the Pacific Ocean at Huntington Beach, a distance of 96 miles. Major tributaries include Bear Creek (which originates at Big Bear Lake), City Creek, Lytle Creek, Cucamonga/Mill Creek, Temescal Creek, Chino Creek, and Santiago Creek. More than 4.5 million people reside within the watershed.

According to the Santa Ana River Basin Plan, the river slows as it reaches the City of Anaheim, where Orange County Water District (OCWD) diverts and recharges essentially all the dry weather flows. Outside the wet season, the Santa Ana River is dry downstream of Anaheim. The Santa Ana River watershed is depicted in Exhibit 3.9-2.

Table 3.9-2: Expected Pollutants of Concern

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>E= Expected to be of Concern</th>
<th>N= Not Expected to be of Concern</th>
<th>Additional Information and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspended Solid/Sediment</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrients</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy Metals</td>
<td>E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.9-2 (cont.): Expected Pollutants of Concern

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>E= Expected to be of Concern</th>
<th>N= Not Expected to be of Concern</th>
<th>Additional Information and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathogens (Virus/Bacteria)</td>
<td>E</td>
<td>N</td>
<td>303(d) listed impairment (Santa Ana River, Reach 2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>—Recommended Delist in 2016 draft</td>
</tr>
<tr>
<td>Pesticides</td>
<td>E</td>
<td>N</td>
<td>—</td>
</tr>
<tr>
<td>Oil &amp; Grease</td>
<td>E</td>
<td>N</td>
<td>—</td>
</tr>
<tr>
<td>Toxic Organic Compounds</td>
<td>E</td>
<td>N</td>
<td>—</td>
</tr>
<tr>
<td>Trash &amp; Debris</td>
<td>E</td>
<td>N</td>
<td>—</td>
</tr>
</tbody>
</table>

### Surface Water Quality

Santiago Creek and the Santa Ana River are listed as impaired water bodies on the currently adopted Regional Board’s 303(d) list. Table 3.9-3 summarizes the characteristics of the impaired water bodies. The proposed 2016 303(d) List proposes to add Benthic Community Effects and Toxicity to Santiago Creek Reach 4 and delist indicator bacteria from the Santa Ana River Reach 2. No TMDLs have been assigned to either receiving waters. Additionally, there are no Environmentally Sensitive Areas (ESAs) or Areas of Special Biological Significance (ASBS) within the project site or within the project vicinity.

### Table 3.9-3: Impaired Water Body Summary

<table>
<thead>
<tr>
<th>Waterway</th>
<th>Reach</th>
<th>Stressors</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santiago Creek</td>
<td>Reach 4: Santa Ana Mountains</td>
<td>Salinity/Total Dissolved Solids/Chlorides</td>
<td>Unknown</td>
</tr>
<tr>
<td>Santa Ana River</td>
<td>Reach 2: Prado Dam to 17th Street (Santa Ana)</td>
<td>Indicator Bacteria</td>
<td>Unknown</td>
</tr>
</tbody>
</table>


### Santiago Creek Water Quality Monitoring

As part of the County-wide stormwater program, surface water monitoring is conducted along Santiago Creek. Currently, there are no monitoring locations for Santiago Creek Reach 1 within the proximity of the proposed project site. However, sampling in the project vicinity has been performed in the past. Field screening data and channel monitoring data were collected at two monitoring stations; one upstream and one downstream of the project site, during the periods of 1967 to 1994, and 1992 to 1996 respectively. The County’s field screening program includes on-site physical and chemical evaluations including dry weather and storm event sampling, as part of an effort to detect illicit connections and illegal discharges. The channel monitoring was conducted using automated samplers, and typically on a monthly basis. A summary of the selected data is provided in Table 3.9-4 and Table 3.9-5.
Table 3.9-4: Santiago Creek Field Screening Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Santiago Creek/Bristol Street (Downstream)</th>
<th>Villa Park Dam (Upstream)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow (cfs)</td>
<td>5.3 200 2 100 5.3</td>
<td>—  —  700</td>
</tr>
<tr>
<td>pH</td>
<td>7.8 7.9 8.5 9.1 7.6</td>
<td>7.2 7.3 8.1</td>
</tr>
<tr>
<td>Conductivity (µmhos)</td>
<td>327 182 912 145 158</td>
<td>863 598 710</td>
</tr>
<tr>
<td>Temperature (°C)</td>
<td>17.4 13.8 22 17.8 16.1</td>
<td>16.3 22 15.5</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>10.5 7.8 8.6 17.9 7.8</td>
<td>5.1 1.4 12.2</td>
</tr>
</tbody>
</table>

Notes:
cfs = cubic feet per second  µmhos = micromhos  °C = degrees Celsius  mg/l = milligrams per liter

Table 3.9-5: Santiago Creek Channel Monitoring Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Santiago Canyon Road Bridge</th>
<th>Santiago Canyon Road Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameters</td>
<td>Sampling Period</td>
<td>Maximum</td>
</tr>
<tr>
<td>Temperature (°C)</td>
<td>1977–1994</td>
<td>22</td>
</tr>
<tr>
<td>Flow (cfs)</td>
<td>1964–1994</td>
<td>1,500</td>
</tr>
<tr>
<td>Conductivity (µmhos)</td>
<td>1978–1994</td>
<td>912</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>1978–1994</td>
<td>17.9</td>
</tr>
<tr>
<td>pH</td>
<td>1978–1994</td>
<td>9.1</td>
</tr>
<tr>
<td>Oil and Grease (mg/l)</td>
<td>1978–1980</td>
<td>18.8</td>
</tr>
<tr>
<td>Total Dissolved Solids (mg/l)</td>
<td>1967–1974</td>
<td>368</td>
</tr>
<tr>
<td>Nitrate (mg/l)</td>
<td>1967–1980</td>
<td>26.4</td>
</tr>
<tr>
<td>Dissolved Boron (mg/l)</td>
<td>1967–1974</td>
<td>200</td>
</tr>
<tr>
<td>Dissolved Fluoride (mg/l)</td>
<td>1967–1974</td>
<td>0.3</td>
</tr>
<tr>
<td>Total Coliform (MPN/100ml)</td>
<td>1978–1980</td>
<td>240,000</td>
</tr>
</tbody>
</table>

Notes:
cfs = cubic feet per second  µmhos = micromhos  °C = degrees Celsius  mg/l = milligrams per liter
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Drainage

In the project vicinity, stormwater runoff is collected and disposed of through an integrated system of curbside gutters, catch basins, drainage ditches, man-made channels, and creeks. The City of Orange and Orange County Flood Control District oversee and manage municipal storm drainage facilities within the City of Orange. Drainage characteristics of the project site are summarized below.

**Project Site**

The project site does not have any storm drainage facilities. Runoff generally ponds on-site, sheet flows to Santiago Creek, or sheet flows off-site into inlets along adjoining roadways. The latter flows are eventually discharged into the waterway via the municipal storm drainage system. The existing drainage patterns are shown in Exhibit 3.9-3.

**Handy Creek Storm Drain**

The Handy Creek storm drain operated by the Orange County Flood Control District is located underground in the central portion of the project site. The storm drain enters the project site from the south at the intersection of North Nicky Way/East Santiago Canyon Road. The storm drain conveys stormwater collected in areas south of East Santiago Canyon Road into Santiago Creek.

Within the project site, the storm drain consists of a double 12-foot by 9-foot reinforced concrete box structure. Runoff from the project site enters the Handy Creek storm drain through several on-site sump inlets. In 2011, the County of Orange advised that the Handy Creek storm drain was a deficient flood control facility and not capable of conveying runoff from a 100-year storm event.

**Unnamed Storm Drain**

Two unnamed storm drains are located in the northwestern portion of the project site and convey stormwater collected in the Mabury Ranch neighborhood directly into Santiago Creek. Note that the project site does not directly discharge runoff into either storm drain.

**Groundwater**

The City of Orange overlies the Orange County Groundwater Basin (OC Basin). The OC Basin underlies the northerly half of Orange County beneath broad lowlands. The OC Basin is managed by OCWD and covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, and the Pacific Ocean to the southwest. The OC Basin boundary extends to the Orange County-Los Angeles Line to the northwest, where groundwater flows across the county line into the Central Groundwater Basin of Los Angeles County. The total thickness of sedimentary rocks in the OC Basin is over 20,000 feet, with only the upper 2,000 to 4,000 feet containing fresh water. The Pleistocene or younger aquifers that make up this Basin are over 2,000 feet deep, and form a complex series of interconnected sand and gravel deposits. The OC Basin’s full volume is approximately 66 million acre-feet.

Groundwater levels are managed within a safe basin operating range to protect the long-term sustainability of the OC Basin, and to protect against land subsidence. OCWD regulates groundwater levels in the OC Basin by regulating the annual amount of pumping.
The OC Basin is not adjudicated; as such, pumping from the OC Basin is managed through a process that uses financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is based on establishing the basin production percentage, the percentage of each Producer’s total water supply that comes from groundwater pumped from the OC Basin. Groundwater production at or below the basin production percentage is assessed a Replenishment Assessment. While there is no legal limit as to how much an agency pumps from the OC Basin, there is a financial disincentive to pump above the basin production percentage. Agencies that pump above the basin production percentage are charged the Replenishment Assessment plus the Basin Equity Assessment, which is calculated so that the cost of groundwater production is greater than Municipal Water District of Orange County’s full service rate. The Basin Equity Assessment can be increased to discourage production above the basin production percentage. The basin production percentage is set uniformly for all producers by OCWD on an annual basis.

Flood Hazard Areas
The National Flood Insurance Act (1968) established the National Flood Insurance Program (NFIP), which provides for the minimal requirements for floodplain management and is designed to minimize flood drainage within Special Flood Hazard Areas. The Federal Emergency Management Agency (FEMA) is the agency that administrates the NFIP. The Special Flood Hazard Area is the area subject to flooding by the 1 percent annual chance flood. The 1 percent annual flood (100-year flood), also known as the base flood, is the flood that has a 1 percent chance of being equaled or exceeded in any given year. Areas of Special Flood Hazard include Zones: A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1 percent annual chance flood. Flood Insurance Rate Maps (FIRMs) were developed by the NFIP to identify areas of flood hazards within a community.

Exhibit 3.9-1 depicts FEMA’s floodplain mapping for the project vicinity. As shown in Exhibit 3.9-4, the project site contains 100-year and 500-year flood hazard areas. The 100-year flood hazard areas within the project site overlap with the Santiago Creek channel. The 500-year flood hazard areas overlap with areas south of the creek, including areas that were previously mined.

Santiago Dam
Santiago Dam is located 5.0 miles upstream of the project site and, along with Irvine Lake, is jointly owned and operated by the Serrano Water District and Irvine Ranch Water District. The dam was completed in 1931 and impounds Irvine Lake. Santiago Dam is an earth/rock-fill structure that is 136 feet tall and 1,425 feet long. The dam is designed to contain up to a 50-year flood and withstand a 500-year flood of over 30,000 cubic feet per second.

Villa Park Dam
Villa Park Dam is located approximately 1.5 miles upstream of the project site and is owned and operated by the Orange County Flood Control District. The dam was completed in 1963 and is used for flood control purposes; it does not store water for municipal use. Villa Park Dam is an earth/rock-fill structure that has a capacity of 15,600 acre-feet.
Exhibit 3.9-3
Existing Drainage Patterns

Source: Fuscoe Engineering
Legend

- Project Site

Special Flood Hazard Areas
- Zone AE - Within 0.1% chance annual flood, base flood elevations determined
- Zone AE - Within 0.1% chance annual flood. Within floodway.

Other Flood Hazard Areas
- Zone X - Areas of 0.2% chance annual flood

Other Areas
- Zone X - Areas outside the 0.2% annual chance floodplain.

100-Year Flood Hazard Areas

Source: CA Dept of Conservation, 2014
3.9.3 - Regulatory Framework

Federal

Clean Water Act

Section 303 of the Clean Water Act (CWA) requires states to adopt water quality standards for all surface waters of the United States. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards (see description the Porter-Cologne Water Quality Control Act, below). Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use.

Section 401 of the CWA requires any person applying for a federal permit or license that may result in the discharge of pollutants into waters of the United States (including wetlands) to obtain a state certification. In California, certifications are administered by the State Water Resources Control Board (SWRCB) through nine Regional Water Quality Control Boards (RWQCBs) (see a description of state regulations below). In order to acquire certification, it must be demonstrated that the activity complies with all applicable water quality standards, limitations, and restrictions. No license or permit by a federal agency may be granted until 401 certification has been granted. Section 401 water quality certifications are typically required prior to obtaining a Section 404 permit from the United States Army Corps of Engineers (USACE).

Section 402 of the CWA mandates that certain types of construction activity comply with the requirements of National Pollutant Discharge Elimination System (NPDES) stormwater program. In California, any construction activity (with the exception of certain industrial activities, none of which are proposed for this project) that disturbs at least one acre is covered under the Construction General Permit issued by the SWRCB and implemented and enforced by RWQCBs.

Floodplains

FEMA oversees floodplains and administers the NFIP adopted under the National Flood Insurance Act of 1968. The program makes federally subsidized flood insurance available to property owners within communities who participate in the program. Areas of special flood hazard (those subject to inundation by a 100-year flood) are identified by FEMA through regulatory flood maps titled Flood Insurance Rate Maps. The NFIP mandates that development cannot occur within the regulatory floodplain (typically the 100-year floodplain) if that development results in more than 1-foot increase in flood elevation. In addition, development is not allowed in delineated floodways within the regulatory floodplain.

Executive Order 11988 (Floodplain Management) addresses floodplain issues related to public safety, conservation, and economics. It generally requires federal agencies constructing, permitting, or funding a project in a floodplain to do the following:

- Avoid incompatible floodplain development,
- Be consistent with the standards and criteria of the NFIP, and
- Restore and preserve natural and beneficial floodplain values.
Executive Order 11990 requires federal agencies to follow avoidance, mitigation, and preservation procedures, with public input, before proposing new construction in wetlands. It generally requires:

- Avoidance of wetlands,
- Minimization of activities in wetlands, and
- Coordination with the USACE and CWA Section 404 regarding wetlands mitigation.

**State**

**Water Quality Statutes and Regulations**

Section 303(d) of the CWA requires that SWRCB identify surface water bodies within California that do not meet established water quality standards. Once identified, the affected water body is included in the SWRCB’s “303(d) Listing of Impaired Water Bodies” and a comprehensive program must then be developed to limit the amount of pollutant discharges into that water body. This program includes the establishment of “total maximum daily loads” for pollutant discharges into the designated water body. The most recent 303(d) listing for California was approved by the United States Environmental Protection Agency (EPA) in 2012.

The Porter-Cologne Water Quality Control Act of 1969 authorized the SWRCB to provide comprehensive protection for California’s waters through water allocation and water quality protection. The SWRCB implements the requirements of Clean Water Act Section 303, indicating that water quality standards have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans for areas in the region, identifying water quality objectives, and issuing NPDES permits and Waste Discharge Requirements. Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. The Porter-Cologne Act was later amended to provide the authority delegated from the EPA to issue NPDES permits. The RWQCB for the project site is the Santa Ana River Region.

Post-construction stormwater controls to satisfy requirements of the NPDES Program are permitted under the Phase I Large Municipal Separate Storm Sewer System (MS4) Permit (Order No. R8-2009-0030 as amended by Order No. 2010-0063).

Projects disturbing more than one acre of land during construction are required to comply with the Construction General Permit (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ, effective February 14, 2011; NPDES No. CAS000002). Construction General Permit activities are regulated at a local level by the RWQCB. To obtain coverage under the Construction General Permit, a project applicant must provide a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation.

The Construction General Permit uses a risk-based permitting approach and mandates certain requirements based on the project risk level (Level 1, Level 2, or Level 3). The project risk level is based
on the risk of sediment discharge and the receiving water risk. The sediment discharge risk depends on project location and timing (such as wet season versus dry season activities). The receiving water risk depends on whether the project would discharge to a sediment-sensitive receiving water. The determination of the project risk level would be made by project applicant when the Notice of Intent is filed (and when more details of the timing of the construction activity are known).

The performance standard in the Construction General Permit is that dischargers minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and best management practices (BMPs). An SWPPP must be prepared by a qualified SWPPP developer that meets the certification requirements in the Construction General Permit. The purpose of the SWPPP is (1) to help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges, and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. Operation of BMPs must be overseen by a qualified SWPPP practitioner who meets the requirements outlined in the permit.

Local

City of Orange

General Plan

The City of Orange General Plan sets forth the following goals and policies relevant to hydrology and water quality:

Natural Resources Element

- **Goal 2.0:** Protect air, water, and energy resources from pollution and overuse.
- **Policy 2.4:** Encourage the production, distribution, and use of recycled and reclaimed water for landscaping projects, while maintaining urban runoff water quality objectives.
- **Policy 2.12:** Cooperate with water supply agencies to protect the quantity and quality of local groundwater supplies.
- **Policy 2.13:** Control surface runoff water discharges into the stormwater conveyance system to comply with the City’s NPDES Municipal Permit and other regional permits issued by the Santa Ana Regional Water Quality Control Board.
- **Policy 2.14:** Reduce pollutant runoff from new development by requiring use of the most low development impact practices and effective BMPs currently available.
- **Policy 2.15:** Minimize the amount of impervious surfaces and associated urban runoff pollutants in new development and significant redevelopment throughout the community.
- **Policy 2.16:** Protect in-stream habitat and natural stream and channel features.

Infrastructure Element

- **Goal 1.0:** Ensure water, sewer, and storm drain systems that meet the needs of residents and businesses.
- **Policy 1.1:** Provide sufficient levels of water, sewer, and storm drain service throughout the community.
- **Policy 1.2:** Correct known deficiencies in the City’s sewer, storm drain, and water systems and work toward environmentally sustainable systems.
• **Policy 1.6:** Require that new developments fund fair-share costs associated with City provision of water, sewer, and storm drain service and are consistent with City and service provider plans to complete needed improvements and funding capacity for such improvements.

**Drainage Area Management Plan**

The Drainage Area Management Plan (DAMP) is Orange County’s principal policy and guidance document for the NPDES program. The plan has been in effect since 1993, with subsequent updated elements. A revised DAMP was submitted to the Santa Ana Regional Water Quality Control Board in July 2006, known as the 2007 DAMP. In May 2009, the Santa Ana RWQCB re-issued the MS4 Permit for the Santa Ana Region of Orange County (fourth term permit), which will result in future changes to the Drainage Area Management Plan and City of Orange Local Implementation Plan and stormwater program. In addition to the previous requirements under the third term permit, the requirements of the new 4th term permit include requirements pertaining to hydromodification and low impact development features associated with new developments and redevelopments.

**3.9.4 - Methodology**

FirstCarbon Solutions obtained information from the Hydrologic Assessment Report and the Water Quality Technical Report, both prepared by Fuscoe Engineering, Inc. The Fuscoe reports are provided in Appendix K.

Additional information was provided by the City of Orange General Plan, City of Orange General Plan EIR, the City of Orange 2015 Urban Water Management Plan, and the Orange County Sheriff’s Department Orange County Operational Area Emergency Action Plan Dam/Reservoir Failure Annex.

**3.9.5 - Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hydrology and water quality impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Violate any water quality standards or waste discharge requirements?

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j) Inundation by seiche, tsunami, or mudflow? (Refer to Section 7, Effects Found Not To Be Significant.)

3.9.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Water Quality

| Impact HYD-1: | Construction and operational activities associated with the proposed project may potentially degrade water quality in downstream water bodies. |

Impact Analysis

This impact addresses whether the proposed project would violate any water quality standards or waste discharge requirements (Checklist Item a); substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site (Checklist Item c); or otherwise substantially degrade water quality (Checklist Item f) during construction activities.

Short-Term Water Quality

Project implementation would require grading, building construction, and paving activities on the 40.7 acres proposed for residential development and portions of the remaining 68.5 acres proposed for open space and recreation. During construction activities, there would be the potential for surface water to carry sediment from on-site erosion and other pollutants into the stormwater system and local waterways.

Construction of the proposed project would also require the use of gasoline- and diesel-powered heavy equipment such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would be utilized during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.
NPDES stormwater permitting is required by the State Water Board’s Construction General Stormwater Permit (General Permit). The General Permit regulates stormwater discharges from construction sites. Under the General Permit, the preparation and implementation of SWPPPs are required for construction activities more than 1 acre in area. The SWPPP must identify potential sources of pollution that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement BMPs that ensure the reduction of these pollutants during stormwater discharges.

Mitigation Measure HYD-1a is proposed, which would require the project applicant to prepare and implement an SWPPP. The implementation of this mitigation measure would ensure that potential, short-term, construction water quality impacts are reduced to a level of less than significant.

**Long-Term Water Quality**

The project site contains mostly pervious surfaces. Runoff either sheet flows into Santiago Creek or sheet flows into inlets along onto adjoining roadways, where it enters the creek via the municipal storm drainage system.

The proposed project would result in the removal of the existing improvements, the grading of the site, and the development of up to 128 dwelling units and associated infrastructure and open space and recreation facilities. The proposed project would increase the amount of impervious surface coverage on the project site and would create the potential for discharge of urban pollutants into downstream waterways. Such pollutants would include sediment and turbidity, nutrients, organic compounds, oxygen demanding substances, trash and debris, bacteria and viruses, oil and grease, pesticides, and metals. Expected generated pollutants are in Table 3.9-2, while runoff volumes and treatment for the generated runoff and pollutants are outlined in Section IV of the Water Quality Management Plan (WQMP). Additionally, because the project site is located in an area of potential susceptibility to hydromodification and the overall project site’s imperviousness will increase in post-development conditions, hydromodification calculations will be performed for the 2-year, 24-hour rain events to assess for hydromodification requirements. Refer to Section II.4 of the WQMP in Appendix K for Hydrologic Conditions for Concern (COC) criteria.

To ensure that stormwater quality measures are implemented to mitigate any associated generated pollutants and runoff peak flows and volumes listed in the WQMP in Appendix K, Mitigation Measure HYD-1b is proposed, which would require the project applicant to prepare and submit a WQMP to the City of Orange for review and approval. Typical elements within a stormwater management plan include identifying pollution prevention measures and practices that comply with the most recently adopted provisions of the Municipal Regional Permit. The implementation of this mitigation measure would ensure that potential, long-term, operational water quality impacts are reduced to a level of less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.
**Mitigation Measures**

**MM HYD-1a**  Prior to the issuance of grading permits, the project applicant shall file a Notice of Intent with and obtain a facility identification number from the State Water Resources Control Board. The project applicant shall also submit an SWPPP to the California State Water Resources Control Board/Santa Ana Regional Water Quality Control Board. The SWPPP that identifies specific actions and BMPs to prevent stormwater pollution during construction activities. The SWPPP shall identify a practical sequence for BMP implementation, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Comply with the requirements of the State of California’s most current Construction Stormwater Permit.
- Temporary erosion control measures shall be implemented on all disturbed areas.
- Sediment shall be retained on-site by a system of sediment basins, traps, or other BMPs.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate discharge of materials to storm drains.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the Santa Ana Regional Water Quality Control Board to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

**MM HYD-1b**  Prior to the issuance of building permits, the project applicant shall submit a WQMP to the City of Orange for review and approval. The plan shall be developed using the Orange County Model Water Quality Management Plan and Technical Guidance Document. The WQMP shall identify pollution prevention measures, low impact development features, and BMPs necessary to control stormwater pollution from operational activities and facilities, identify hydromodification flow controls, and provide for appropriate maintenance over time. The WQMP shall include design concepts and BMPs that are intended to address the Design Capture Volume, more commonly referred to as the “first flush,” and remove pollutants from the design system event before entering the MS4. In accordance with the Regional MS4 Permit and City of Orange WQMP requirements, the use of low impact development features will be consistent with the prescribed hierarchy of treatment provided in the Permit: including techniques to infiltrate, filter, store, evaporate, or retain runoff close to the source of runoff. For those areas of the project where infiltration is not recommended or acceptable and harvest/reuse demands are insufficient,
biofiltration features will be designed to treat runoff and discharge controlled effluent flows to downstream receiving waters. The project WQMP shall also include an operations and maintenance plan for the prescribed Low Impact Development (LID) features, structural BMPs, and any hydromodification controls to ensure their long-term performance. A funding mechanism for operations and maintenance shall also be prescribed.

**Level of Significance After Mitigation**

Less than significant impact.

**Groundwater**

**Impact HYD-2:** The proposed project would not contribute to groundwater overdraft or impair groundwater recharge.

**Impact Analysis**

This impact assesses whether project would substantially deplete groundwater supplies or interfere substantially with groundwater recharge, and the related issue of groundwater impairment from underground storage tanks.

**Groundwater Supplies**

The proposed project would result in a net increase in demand for potable water from the City of Orange. The proposed project is anticipated to demand 99.5 acre-feet of water annually; refer to Section 3.17, Utilities and Service Systems for further detail regarding the demand estimate. The City’s 2015 Urban Water Management Plan indicates that groundwater constitutes approximately 72 percent of the City’s potable water supply. The 2015 Urban Water Management Plan contemplates up to 20,650 acre-feet of groundwater production from the OC Basin annually through 2040. Thus, the proposed project’s demand would be equivalent to 0.5 percent of the total volume of city groundwater production contemplated by the 2015 Urban Water Management Plan. Moreover, the proposed project’s demand is accounted for by the 2015 Urban Water Management Plan and, thus, reflected in the demand estimates.

The OC Basin is managed by OCWD, which assess fees to agencies that pump from the basin. The fees are structured in a manner that penalizes pumping above the basin production percentage threshold. Once the threshold is exceeded, additional fees are assessed that make the per unit cost of groundwater production costlier than other sources of water (i.e., imported water). The OC Basin is not classified as being in a state of overdraft by the California Department of Water Resources, which serves as evidence that OCWD’s management efforts have been successful in preserving the sustainability of the resource.

Because project demand would represent a very small percent of total groundwater supply and due to the success of OCWD’s groundwater management efforts, impacts on groundwater resources would be considered less than significant.

Local groundwater quality and methane levels at the adjacent Villa Park Landfill are monitored by the OC Waste & Recycling division via monitoring wells. Additionally, the proposed project site is not
expected to impact groundwater quality. Per Section III.3 and IV.3.2 of the WQMP in Appendix K, infiltration has been deemed infeasible per findings by Ginter & Associates, Inc. in a 2012 study. Therefore, infiltration shall not be promoted on-site.

**Groundwater Recharge**

The project site is bisected by Santiago Creek, which provides for groundwater recharge within its channels. The proposed project would develop residential uses on 40.7 acres of the project site, with open space and recreation uses on the remaining 68.5 acres. The entire Santiago Creek corridor would be protected as a greenway and, thus, would be available for continued groundwater recharge. As the project site is located in close proximity to the Villa Park landfill site, no infiltration for groundwater recharge will be promoted on-site, and only incidental infiltration will occur on landscaped areas. Therefore, the proposed project would not interfere with groundwater recharge efforts. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Drainage**

| Impact HYD-3: | The proposed project would not contribute runoff to downstream storm drainage facilities that would result in the potential for flooding. |

**Impact Analysis**

The proposed project would result in the development of up to 128 dwelling units and infrastructure on 40.7 acres of the project site. The remaining acreage would be dedicated for open space and recreation use. Thus, the proposed project would increase the amount of impervious surface coverage on the project site, and would create the potential for increased runoff leaving the project site that may create potential flooding conditions in downstream waterways.

Of particular concern is the Handy Creek storm drain, which currently accepts runoff from the project site under existing conditions. The County of Orange has previously identified the storm drain as a deficient flood control facility that is not capable of conveying runoff from a 100-year storm event.

The proposed project would install a network of storm drainage facilities within the project site consisting of inlets, underground piping, and basins. This system would serve 72.58 acres of the site and direct runoff to a 3.7-acre foot capacity stormwater detention basin in the western portion of the site. A flow control structure will be installed within the detention system to meter the outflow from the site to below predevelopment levels. This system is not intended for groundwater recharge and will be lined to prevent infiltration. Catch basins will be located at various points within the site.
to capture subarea flows. The system is designed to detain flows from a 100-year storm event as required by the Orange County Hydrology Manual.

Two sub drainage areas will flow directly to Santiago Creek without detention. One of these areas is approximately 1.46 acres directly over the Handy Creek Channel. This flow will be directed to the Handy Creek Channel. The other area is the trail system adjacent to Santiago Creek and totals 6.20 acres. This flow will be picked up via a storm drain system, which will outlet at the same location as the detention basin outlet. The outlet structure from the detention basin to Santiago Creek will be protected by riprap and an energy dissipater.

Table 3.9-6 summarizes existing and proposed discharge rates into Santiago Creek from the main drainage area for the 2-year and 100-year storm events. As shown in the table, the project would achieve a net reduction of stormwater discharge during storm events.

**Table 3.9-6: Existing and Proposed Discharge Rates—Proposed Storm Drainage System**

<table>
<thead>
<tr>
<th>Storm Event</th>
<th>Drainage Area</th>
<th>Cubic Feet/Second</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>2-Year</td>
<td>72.58 acres</td>
<td>44.46</td>
<td>28.72</td>
</tr>
<tr>
<td>100-Year</td>
<td></td>
<td>180.05</td>
<td>82.72</td>
</tr>
</tbody>
</table>


Table 3.9-7 summarizes existing and proposed discharge rates into the Handy Creek storm drain for the 2-year and 100-year storm events. As shown in the table, the project would achieve no net increase discharge of stormwater into the Handy Creek storm drain during storm events. Peak flows to Handy Creek channel through will not be altered through implementation of the project and will not pose any additional hazards or risks to downstream residents. This drainage area is not proposed to receive any increases in impervious area as it is designated as open space. Refer to the Hydrology Report in Appendix K for full calculations compiled via AES Hydrology Software and HydroCAD Detention Modeling Software.

**Table 3.9-7: Existing and Proposed Discharge Rates—Handy Creek Storm Drainage**

<table>
<thead>
<tr>
<th>Storm Event</th>
<th>Drainage Area</th>
<th>Cubic Feet/Second</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>2-Year</td>
<td>1.46 acres</td>
<td>1.41</td>
<td>1.41</td>
</tr>
<tr>
<td>100-Year</td>
<td></td>
<td>4.43</td>
<td>4.43</td>
</tr>
</tbody>
</table>


This serves to illustrate that the proposed storm drainage system would slow, reduce, and meter the volume of runoff leaving the project site and ensure that downstream storm drainage facilities are not inundated with project-related stormwater. Impacts would be less than significant. Refer to
Appendices 2, 3, & 5 within the Hydrology Report in Appendix K for calculations compiled via AES Hydrology Software and HydroCAD Detention Modeling Software.

Finally, the proposed project would not alter the two unnamed storm drains located in the northwestern portion of the project site. Flow patterns in the project site’s post-development conditions will continue to be conveyed in a similar manner to existing conditions. Refer to the existing and proposed hydrology maps in Appendix 7 of the Hydrology Report in Appendix K for further information on existing and proposed runoff patterns.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**100-Year Flood Hazard Areas**

| Impact HYD-4: | The proposed project would not place housing or structures within a 100-year flood hazard area. |

**Impact Analysis**
As shown in Exhibit 3.9-1, the 100-year flood hazard areas within the project site overlap with the Santiago Creek channel. The proposed project would establish a greenway along the creek corridor and, thus, would not alter the existing 100-year flood hazard areas. Furthermore, the proposed residential uses would be located outside of the 100-year flood hazard areas.

The areas mapped as 500-year flood hazard areas mostly coincide with areas proposed for open space and recreation, although approximately 15 acres of the residential area overlaps with this area. However, current federal regulations only require that “critical facilities” be located above the 500-year flood elevation; residential uses are permitted within this area.

Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
Levee or Dam Failure

Impact HYD-5:  The project may be susceptible to inundation from dam failure.

Impact Analysis

Santiago Dam is located 1.3 miles upstream of the project site. The dam was completed in 1931 and impounds Irvine Lake. Santiago Dam is an earth/rock-fill structure that is 136 feet tall and 1,425 feet long. The dam designed to contain up to a 50-year flood and withstand a 500-year flood of over 30,000 cubic feet per second.

Villa Park Dam is located approximately 1.5 miles upstream of the project site and is owned and operated by the Orange County Flood Control District. The dam was completed in 1963 and is used for flood control purposes; it does not store water for municipal use. Villa Park Dam is an earth/rock-fill structure that has a capacity of 15,600 acre-feet.

The California Department of Water Resources Division of Safety of Dams oversees dam safety and requires local dam operators to maintain records concerning maintenance, operation, staffing, and engineering and geologic investigations that pertain to their facilities. Division of Safety of Dams personnel have the ability inspect dams for safety and require operators to implement corrective measures if deficiencies are found. Additionally, the Division of Safety of Dams oversees alteration and repair of dams. The agencies that own and operate Santiago Dam and Villa Park Dam are responsible for compliance with State laws that pertain to the safety of the facilities.

Additionally, at least one staff person from the Orange County Flood Control District is stationed at each facility 24 hours a day, 7 days a week to monitor dam and reservoir conditions. Staff members are trained in the operation of the facilities and would be able to identify and respond to indications of adverse conditions; initial alerting of a dam failure would come from these dam keepers.

Furthermore, the Orange County Sheriff’s Department oversees the County’s Emergency Operations Center and has modeled dam failure scenarios for both Villa Park Dam and Santiago Dam based on FEMA Flood Maps (Exhibit 3.9-4). The Sheriff’s Department has developed plans to provide timely notification to affected parties and implement an orderly evacuation in the event dam failure indications are observed, such as the AlertOC mass notification system that provides time-sensitive messages to residents from the City of County in which they live or work. The Orange County Operational Area Emergency Action Plan Dams/Reservoir Failure Annex indicates that it would take a dam failure flood wave 105 minutes to reach the project site from Villa Park Dam and 255 minutes from Santiago Dam. Emergency response times vary on average from 4 to 7 minutes for the City of Orange Police Department and 3 minutes, 45 seconds for the City of Orange Fire Department. Further discussion on the City of Orange Police and Fire Departments can be found in Section 3.14, Public Services of this Draft EIR.

In the interests of promoting awareness about the potential for dam failure and making future residents aware of evacuation procedures, Mitigation Measure HYD-5 requires the applicant to prepare and implement an emergency evacuation plan. With the implementation of mitigation, impacts would be less than significant.
Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-5  Prior to issuance of the first certificate of occupancy, the applicant shall retain a qualified consultant to prepare and implement an Emergency Evacuation Plan. The plan shall identify the various types of emergency that could affect the proposed project (e.g., dam failure, earthquake, flooding, etc.) and identify procedures for the safe and orderly evacuation of the project. The plan shall require that streets be identified with clear and visible signage and, if necessary, wayfinding signage be provided to identify exit points.

Level of Significance After Mitigation

Less than significant impact.
3.10 - Land Use and Planning

3.10.1 - Introduction

This section describes the existing land use and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on site reconnaissance, and review of the City of Orange General Plan, the Orange Municipal Code, the East Orange Plan, and the Orange Park Acres Plan.

3.10.2 - Environmental Setting

Land Use

Project Site

The approximately 109.2-acre project site contains disturbed, privately owned undeveloped land that previously supported mining activities and currently supports a sand gravel operator in accordance with the existing Sand and Gravel zoning (Orange Municipal Code Chapter 17.32). The project site is comprised of 12 parcels and is bisected by Santiago Creek in an east-west direction. The site contains gently sloping terrain, with an overall change in elevation from 456 feet above mean sea level in the northeast corner to 344 feet above mean sea level in the southwest corner. An approximately 10-acre, semi-oval-shaped raised pad is located in the eastern portion of the site. The pad sits roughly 15 feet higher than the mining area to the west.

Approximately 40 acres between Santiago Creek and East Santiago Canyon Road contains remnants of the mining operation and is the location of the ongoing sand and gravel operation. This area is characterized by soil piles, berms, and unpaved roads. Adjacent to East Santiago Canyon Road is an approximately 5-acre area that supports a materials recycling operation that included apparatus for the crushing of boulders, bricks, rocks, and similar materials for recycling. Materials used for these operations originated primarily from off-site sources, and the materials generated by these operations have historically been used both on-site and transported off-site. Ancillary uses included administration and maintenance buildings, caretaker residence, material testing laboratory, driver’s shack, rock crushing facilities, several aboveground and belowground fuel storage tanks, and two hot-mix asphalt plants.

Additionally, the previously mined portions of the site were “backfilled,” in which unsuitable materials are excavated and replaced with fill, pursuant to a grading permit issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material would be imported to the site during the process, including concrete, asphalt, and rock that would be crushed on-site. Approximately 2,000 cubic yards of material was anticipated to be excavated from the site for reuse and would be blended with the crushed import material for a total of 225,000 cubic yards of backfill. In 2015, in a “good faith” gesture, the operator voluntarily temporarily suspended operations on the site, and limited rock crushing operations to a total of 15 consecutive business days in any 6-month period. The operator reserved the right to resume all operations consistent with the Sand and Gravel zoning.
Santiago Creek enters the site at the eastern boundary, flows west, and exits the western boundary at North Cannon Street. The creek originates at Irvine Lake and is tributary to the Santa Ana River. The drainage feature splits near the central portion of the project site, with an upland area separating Santiago Creek into two rivulets. The average width of the drainage feature is approximately 55 feet, which includes the area between the ordinary high water mark and the adjacent defined wetland areas. Wetland areas are generally located on either side of the active channel. The creek corridor is privately owned and is not accessible to the public.

Natural vegetation within the site is primarily located along Santiago Creek. Plant communities include coast live woodland, coastal sage scrub, eucalyptus woodland, non-native grassland, ornamental, southern cottonwood-willow riparian forest, and undifferentiated open woodland. There are 323 trees located with the project site, of which the most common species are blue gum (eucalyptus), oak, willow, and palm.

The Handy Creek storm drain operated by the Orange County Flood Control District (Facility No. E08S06) is located in the central portion of the project site. The storm drain enters the project site from the south at the intersection of North Nicky Way/East Santiago Canyon Road. The storm drain conveys stormwater collected in areas south of East Santiago Canyon Road into Santiago Creek. An unnamed storm drain located in the northwestern portion of the project site conveys stormwater collected in the Mabury Ranch neighborhood directly into Santiago Creek.

The Allen McCulloch Pipeline trunk water distribution line operated by the Metropolitan Water District (MWD) traverses the easterly portion of the project site and is located entirely below grade. The pipeline traverses the site within a 50-foot-wide easement. The easement crosses through the site in a northwest-southeast direction, entering the site from the north at the intersection of Mabury Avenue/Yellowstone Boulevard, and exiting at the single-family residential subdivision to the south. The pipe measures 109 inches in diameter and is part of the MWD transmission system that supplies potable water to southern Orange County.

There are historic ground water and methane monitoring wells associated with the closed adjoining Villa Park Landfill that are located on the western portion of the project site.

**Surrounding Area**

**West**

The closed Villa Park Landfill and North Cannon Street form the western boundary of the project site. The 18-acre County Villa Park Landfill property occupies the northeast quadrant of the intersection of East Santiago Canyon Road/North Cannon Street and is owned by the County of Orange. The landfill operated from 1962 through 1966. The site is enclosed with a fence and contains groundwater monitoring wells and a landfill gas disposal system. Areas to the west also include detached, single-family dwelling units related to West of Cannon (typical lot size 7,800–10,000 square feet).

North Cannon Street is a four-lane divided roadway and crosses Santiago Creek via a concrete bridge. A paved Class I bicycle/pedestrian path (Santiago Creek Bike Trail) is located along the west side of North Cannon Street south of Santiago Creek. See Exhibit 2-5 in Section 2, Project Description of this...
Draft Environmental Impact Report (EIR) for the locations of surrounding residential uses with typical lot sizes less than 10,000 square feet.

North
Single-family residential uses are located to the north of the project site, including Creekside Ranch (typical lot size 9,200–12,000 square feet), The Colony-North (typical lot size 8,600–12,000 square feet), Mabury Ranch (typical lot size 7,600–11,000 square feet), Hidden Creek (typical lot size 20,000–24,500 square feet), Serrano Heights (typical lot size 4,500–9,000 square feet), and Parkridge (typical lot size 8,000–12,000 square feet). Detached, single-family dwelling units are located along the north bank of Santiago Creek.

Mabury Avenue is a two-lane undivided roadway. An unpaved trail (Santiago Creek Trail) is located along the north bank of the creek, parallel to Mabury Avenue.

East
Santiago Oaks Regional Park and detached, single-family residential uses associated with The Reserve (typical lot size 20,000–44,000 square feet) form the eastern boundary of the project site. The regional park contains the Santiago Creek corridor, which consists of the waterway and dense vegetation. Detached, single-family dwelling units are located east of the project site.

South
East Santiago Canyon Road, a four-lane, divided roadway, forms the southern boundary of the project site. Detached single-family dwelling units associated with the Jamestown neighborhood (typical lot size 8,000–11,000 square feet), Orange Park Acres (typical lot size 50,000 to 1 acre plus square feet), Eichler Homes (typical lot size 7,600–12,000 square feet), and The Colony-South (typical lot size 7,000–10,000 square feet) are located south of the roadway. The Mara Brandman Arena is located at the intersection of East Santiago Canyon Road and North Nicky Way.

Land Use Designations

Project Site
The City of Orange General Plan designates portions of the project site “Low Density Residential,” “Resource Area,” and “Open Space.” The City of Orange Zoning Ordinance zones the project site “S-G (Sand and Gravel Extraction)” and “R-1-8 (Single-Family Residential 8,000 square-feet).”

Surrounding Land Uses
Table 3.10-1 summarizes surrounding City of Orange General Plan, City of Orange zoning, East Orange General Plan, and Orange Park Acres Plan land use designations in the project vicinity.
Table 3.10-1: Surrounding Land Use Designations

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Relationship to Project Site</th>
<th>Land Use Designation</th>
<th>General Plan</th>
<th>Zoning</th>
<th>East Orange General Plan</th>
<th>Orange Park Acres Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villa Park Landfill (Closed)</td>
<td>West</td>
<td>Open Space</td>
<td>S-G (Sand and Gravel)</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Single-family residential neighborhood</td>
<td>North</td>
<td>Low Density Residential</td>
<td>R-1-8 (Single-family residential; 8,000 square feet)</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Santiago Oaks Regional Park</td>
<td>East</td>
<td>Open Space</td>
<td>R-O (Recreation Open Space)</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Single-family residential neighborhood</td>
<td>East</td>
<td>Estate Low Density Residential</td>
<td>R-1-40 (Single-family residential; 40,000 square feet)</td>
<td>N/A</td>
<td>Low Density Residential</td>
<td></td>
</tr>
<tr>
<td>Salem Lutheran Church and School</td>
<td>South</td>
<td>Public Facilities Institutions</td>
<td>SP-P-I (Specific Plan Public Institution)</td>
<td>N/A</td>
<td>Church</td>
<td></td>
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<tr>
<td>Mara Brandman Arena</td>
<td>South</td>
<td>Estate Low Density Residential</td>
<td>R-1-40 (Single-family residential; 40,000 square feet)</td>
<td>Low Density Residential</td>
<td>Low Density Residential</td>
<td></td>
</tr>
<tr>
<td>Single-family residential neighborhood</td>
<td>South</td>
<td>Estate Low Density Residential</td>
<td>R-1-8 (Single-family residential; 8,000 square feet)/R-1-20 (Single-family residential; 20,000 square feet)</td>
<td>Low Density Residential</td>
<td>Low Density Residential</td>
<td></td>
</tr>
</tbody>
</table>

Source: City of Orange, 2016.

**East Orange General Plan**

The East Orange General Plan was adopted in 1975 and encompasses approximately 1,900 acres. In accordance with the City of Orange Planning Division, approximately 37 acres of the project site are located within the boundaries of the 1975 East Orange General Plan. The project site constitutes approximately 2 percent of the overall East Orange General Plan acreage. The East Orange General Plan designates the project site as “Regional Park.” Exhibit 3.10-1 depicts the portion of the proposed project that is within the East Orange General Plan.

**Orange Park Acres Plan**

The Orange Park Acres Plan (OPA Plan) was adopted on December 26, 1973. In accordance with the City of Orange Planning Division, approximately 39 acres of the project site are presently located within the boundaries of the existing OPA Plan. There are approximately 1,794 total acres in the OPA Plan. The project site is approximately 3 percent of the overall OPA Plan acreage. The OPA Plan designates this area as “Open Space.” Exhibit 3.10-2 depicts the portion of the proposed project that is within the OPA Plan.
Exhibit 3.10-1
East Orange General Plan

East Orange
General Plan Amendment 1976
37 Acres*

*Land Use acres per the City of Orange and based upon 1989 General Plan Land Use Map. Acres to be considered approximate.

Source: City of Orange
Central/Coastal Natural Community Conservation Plan and Habitat Conservation Plan

The project site is within the central subregion of the County of Orange Central/Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). The NCCP/HCP is intended to protect and manage coastal sage scrub habitat and coastal sage scrub-obligate species, as well as other covered habitats and species, and mitigate anticipated impacts on those habitats and species on a programmatic, subregional level.

3.10.3 - Regulatory Framework

Regional

Central/Coastal Natural Community Conservation Plan and Habitat Conservation Plan

The project site is within the central subregion of the County of Orange Central/Coastal Subregion NCCP/HCP (Exhibit 3.4-6). The NCCP/HCP was reviewed and approved by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) in 1996 to address protection and management of coastal sage scrub habitat and coastal sage scrub-obligate species, as well as other covered habitats and species, and mitigate anticipated impacts on those habitats and species on a programmatic, subregional level rather than on a project-by-project, single-species basis. A habitat reserve in excess of 37,000 acres was established for the protection of coastal sage scrub, other upland habitats, the coastal California gnatcatcher, and the other primarily coastal sage scrub-dependent species identified in the NCCP/HCP. Specifically, the NCCP/HCP, the USFWS, and the CDFW authorized take of 39 identified species of plants and wildlife (including covered and conditionally covered species). Further, the NCCP/HCP contains requirements for adaptive management, interim management, and funding management for the reserve as well as procedures and minimization measures related to the take of identified species and habitat. Thus, the NCCP/HCP provides for the protection and management of a broad range of plant and wildlife populations while providing certainty to the public and affected landowners with respect to the location of future development and open space in the subregion.

The NCCP/HCP provides for the protection of a number of plant and animal species, referred to as Target Species and Identified Species. There are also identified NCCP/HCP species that have conditional regulatory coverage under the NCCP/HCP referred to as conditionally covered Identified Species. The conservation and management of these species is provided for under the NCCP. A development activity authorized under the NCCP/HCP necessarily includes protection of these species and also means that no further action under CESA or FESA is required for the approved activity should any of the Target or Identified Species be subsequently listed as endangered or threatened under either of these Acts. As a consequence, Target and Identified Species are considered sensitive.

Local

City of Orange

General Plan

The City of Orange General Plan serves as the City of Orange’s land use and development policy document and identifies how the City will grow and conserve its resources. The City of Orange
General Plan contains the following elements: Land Use, Circulation and Mobility, Growth Management, Natural Resources, Public Safety, Noise, Cultural Resources and Historic Preservation, Infrastructure, Urban Design, and Economic Development. Within each element, the City of Orange General Plan sets forth goals and policies to guide future development and land use activities.

The project site is currently designated “Resource Area,” “Low Density Residential,” and “Open Space” by the City of Orange General Plan. In accordance with the proposed project: The portion of the site north of Santiago Creek, currently designated as “Low Density Residential,” is proposed to be re-designated as “Open Space” and the portion of the site currently designated as “Resource Area” is proposed to be re-designated to “Low Density Residential,” and “Open Space.” Refer to Impact LUP-1 for further discussion of the proposed City of Orange General Plan Amendment.

Municipal Code
The City of Orange Municipal Code governs development and land use activities within the Orange City limits. Within the Municipal Code is the Zoning Code (Title 17), which establishes zoning districts and associated development standards and allowable/conditional uses.

The project site is zoned “S-G (Sand and Gravel)” and “R-1-8 (Single Family Residential 8,000 square feet)” by the Zoning Code. The site is proposed to be rezoned to “SP (Specific Plan).” Refer to Impact LUP-2 for further discussion of the proposed rezoning.

3.10.4 - Methodology
FirstCarbon Solutions (FCS) personnel performed site reconnaissance of the project site in December 2016. FCS documented existing conditions with digital photographs and notes. FCS reviewed the City of Orange General Plan, the City of Orange Municipal Code, the East Orange General Plan, and the Orange Park Acres Plan for provisions applicable to the proposed project. Finally, FCS reviewed project plans for consistency with the relevant provisions of the General Plan and Municipal Code.

3.10.5 - Thresholds of Significance
According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether land use and planning impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Physically divide an established community? (Refer to Section 7, Effects Found Not To Be Significant)

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?
3.10.6 - Project Impacts Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

General Plan Consistency

Impact LUP-1: The project would not conflict with any of the applicable provisions of the City of Orange General Plan.

Impact Analysis

This impact evaluates (1) the proposed General Plan Amendment’s compatibility with the City of Orange General Plan and surrounding land uses and (2) the proposed project’s consistency with the applicable goals and policies of the General Plan.

General Plan Amendment

The project site is currently designated “Resource Area,” “Low Density Residential,” and “Open Space . . .” The “Resource Area” land use designation reflects the current surface mining activities that occurred on the south side of Santiago Creek. The “Low Density Residential” designation applies to the portion of the site north of Santiago Creek, adjacent to Mabury Avenue. The “Open Space” designation applies to a relatively narrow strip running through the site from east to west and roughly following Santiago Creek.

The proposed project involves the development of 128 dwelling units on approximately 40.7 acres within the area currently designated “Resource Area” and the preservation of the remaining 68.5 acres (which overlap with the “Resource Area” and “Low Density Residential” designations) as open space and recreation uses. Accordingly, the applicant is proposing to change the “Resource Area” designation to a combination of “Low Density Residential,” and “Open Space”; and the “Low Density Residential” designation to “Open Space.” The area currently designated “Open Space” will remain “Open Space.”

These land use changes are necessary to allow the proposed development on the site, and are consistent and compatible with the other surrounding residential land use designations; refer to Table 3.10-1. With implementation of the General Plan Amendment, the project will be consistent with the City of Orange General Plan.

General Plan Consistency Analysis

Table 3.10-2 evaluates project consistency with the applicable goals and policies of the City of Orange General Plan.
Table 3.10-2: General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>Goal/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>Goal 1.0</td>
<td>Consistent: The proposed project would redevelop a site previously used for surface mining activities to support up to 128 dwelling units and open space and recreation uses. This is consistent with the goal of meeting current and future needs with a diverse and balanced mixed of land uses.</td>
</tr>
<tr>
<td>Policy 1.1</td>
<td>Maintain a land use structure that balances jobs and housing with available infrastructure and public and human services.</td>
<td>Consistent: The proposed project would develop up to 128 dwelling units in a city and county that are considered “jobs rich.” Thus, the project would promote jobs-housing balance.</td>
</tr>
<tr>
<td>Policy 1.2</td>
<td>Balance economic gains from new development while preserving the character and densities of residential neighborhoods.</td>
<td>Consistent: The proposed project promotes land use compatibility with surrounding residential development by clustering the new dwelling units on 40.7 acres of the site adjacent to East Santiago Canyon Road and preserving the remaining acreage for open space and recreation use. This is consistent with the policy of balancing economic benefits with the preservation of neighborhood character.</td>
</tr>
<tr>
<td>Policy 1.3</td>
<td>Provide a range of housing densities and types to meet the diverse needs and lifestyles of residents.</td>
<td>Consistent: The proposed project would develop 128 new single-family dwelling units and, thus, provide new housing opportunities.</td>
</tr>
<tr>
<td>Policy 1.4</td>
<td>Ensure that new development reflects existing design standards, qualities, and features that are in context with nearby development.</td>
<td>Consistent: The proposed project promotes land use compatibility with surrounding residential development by clustering the new dwelling units on 40.7 acres of the site adjacent to East Santiago Canyon Road and preserving the remaining acreage for open space and recreation use. Additionally, the density and housing products are similar to the residential uses to the north, east, and south.</td>
</tr>
<tr>
<td>Element</td>
<td>No.</td>
<td>Goal/Policy</td>
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</tr>
<tr>
<td>Policy 1.7</td>
<td></td>
<td>Provide a range of open space and park amenities to meet the diverse needs of current and new residents.</td>
</tr>
<tr>
<td>Goal 6.0</td>
<td></td>
<td>Advance development activity that is mutually beneficial to both the environment and the community.</td>
</tr>
<tr>
<td>Policy 6.1</td>
<td></td>
<td>Ensure that new development is compatible with the style and design of established structures and the surrounding environment.</td>
</tr>
<tr>
<td>Policy 6.3</td>
<td></td>
<td>Establish and maintain greenways, and pedestrian and bicycle connections that complement the residential, commercial and open space areas they connect.</td>
</tr>
<tr>
<td>Policy 6.5</td>
<td></td>
<td>Reduce pollutant runoff from new development and urban runoff to the maximum extent practicable.</td>
</tr>
<tr>
<td>Policy 6.6</td>
<td></td>
<td>Enhance the walkability of both new and current development.</td>
</tr>
</tbody>
</table>
### Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>No.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Policy 6.10</td>
<td></td>
<td>Mitigate adverse air, noise, circulation, and other environmental impacts caused by new development adjacent to existing neighborhoods through use of sound walls, landscaping buffers, speed limits, and other traffic control measures.</td>
<td><strong>Consistent:</strong> The proposed project promotes land use compatibility with surrounding residential development by clustering the new dwelling units on approximately 40.7 acres of the site adjacent to East Santiago Canyon Road and preserving the remaining acreage for open space and recreation use. Additionally, the proposed project would employ a landscaped buffer with the residential uses to the east.</td>
<td></td>
</tr>
<tr>
<td>Circulation</td>
<td>Goal 1.0</td>
<td>Provide a safe, efficient, and comprehensive circulation system that serves local needs, meets forecasted demands, and sustains quality of life in neighborhoods.</td>
<td><strong>Consistent:</strong> The proposed project would develop an internal street network that connects to East Santiago Canyon Road. The proposed project would also include pedestrian facilities consisting of a trail network.</td>
<td></td>
</tr>
<tr>
<td>Policy 1.1</td>
<td></td>
<td>Plan, build, and maintain an integrated, hierarchical, and multi-modal system of roadways, pedestrian walkways, and bicycle paths throughout the City.</td>
<td><strong>Consistent:</strong> The proposed project would develop new internal roadways and pedestrian facilities consisting of a trail network that would connect North Cannon Street to Santiago Oaks Regional Park. Additionally, project streets and the trail network would be accessible to bicycles. These attributes are consistent with the policy of developing a multi-modal transportation system.</td>
<td></td>
</tr>
<tr>
<td>Policy 1.7</td>
<td></td>
<td>Consolidate driveways along roadways that provide access to commercial uses to minimize side street interruption and promote smooth traffic flows.</td>
<td><strong>Consistent:</strong> The proposed project would have only two vehicular access points on East Santiago Canyon Road.</td>
<td></td>
</tr>
<tr>
<td>Goal 4.0</td>
<td></td>
<td>Provide efficient and accessible modes of pedestrian, bicycle, and equestrian transportation and improved facilities and amenities.</td>
<td><strong>Consistent:</strong> The proposed project would develop pedestrian facilities consisting of a trail network that would connect North Cannon Street to Santiago Oaks Regional Park. Additionally, project streets and the trails would be accessible to bicycles. Equestrians would also be able to use the trails.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
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<th>Goal/Policy</th>
<th>Text</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Policy 4.1</td>
<td></td>
<td>Create a comprehensive bicycle network that is integrated with other transportation systems by establishing complementary on-street and off-street facilities as identified in the City of Orange Bikeways Master Plan and OCTA Commuter Bikeways Strategic Plan, including Santiago Creek, the Santa Ana River, and the Tustin Branch Trail.</td>
<td>Consistent: The proposed trail network includes facilities contemplated by the City’s and OCTA’s bikeways plans.</td>
<td></td>
</tr>
<tr>
<td>Growth Management</td>
<td>Goal 1.0</td>
<td>Reduce traffic congestion within the City.</td>
<td>Consistent: The proposed project’s impacts on traffic are evaluated in Section 3.16, Transportation. Local intersections were evaluated against the City’s adopted performance standards and mitigation measures were proposed to improve deficient operations to acceptable levels. This is consistent with the goal of reducing traffic congestion.</td>
<td></td>
</tr>
<tr>
<td>Policy 1.1</td>
<td></td>
<td>Establish Level of Service (LOS) D as the level of service standard for traffic circulation within the City for both roadway segments and peak-hour signalized intersection movements.</td>
<td>Consistent: LOS D was used as the basis for evaluating project impacts on intersection operations. Refer to Section 3.16, Transportation for further discussion.</td>
<td></td>
</tr>
<tr>
<td>Policy 1.2</td>
<td></td>
<td>Ensure completion of transportation improvements as agreed upon by the City and developer prior to completion of a development project.</td>
<td>Consistent: All vehicular access points (including the improved intersection of East Santiago Canyon Road/North Nicky Way) would be required to be completed in accordance with City standards prior to issuance of the first certificate of occupancy.</td>
<td></td>
</tr>
<tr>
<td>Policy 1.3</td>
<td></td>
<td>Ensure that new development pays its fair share of street improvement costs, including regional traffic mitigation. New revenues generated from Measure M, if available, shall not be used to replace private developer funding which has been omitted for any project.</td>
<td>Consistent: The project applicant would install a signal and intersection improvements at the entrance to the project on East Santiago Canyon Road/North Nicky Way and contribute fair-share fees to improvements at Orange Park Boulevard/East Santiago Canyon Road and Chapman Avenue/East Santiago Canyon Road. Refer to Section 3.16, Transportation for further discussion.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>Goal/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy 1.4</td>
<td>Continue to collect transportation impact fees for improvements within the City boundaries and work with adjacent jurisdictions to determine that an appropriate level of transportation impact fees are maintained within the established County GMAs.</td>
<td><strong>Consistent:</strong> The project applicant will pay all adopted transportation fees at the time building permits are sought.</td>
</tr>
<tr>
<td>Policy 1.9</td>
<td>Ensure that new developments incorporate non-motorized and alternative transit amenities such as bike racks, bus benches and shelters, and pedestrian connections.</td>
<td><strong>Consistent:</strong> The proposed project would develop pedestrian facilities consisting of sidewalks along streets and a new creek trail that would connect North Cannon Street to Santiago Oaks Regional Park.</td>
</tr>
<tr>
<td>Policy 2.3</td>
<td>Continue to work toward achieving a balance between residential, industrial, commercial, and public land uses. Support programs that match Orange residents with local jobs to reduce long commutes and improve the fiscal and public health of the community.</td>
<td><strong>Consistent:</strong> The proposed project would develop 128 new dwelling units in a City and County that are “jobs rich.” Thus, the new housing opportunities would promote the objective of balancing residential and non-residential development.</td>
</tr>
<tr>
<td>Policy 2.4</td>
<td>Explore infill development or mixed-use opportunities wherever possible as developable space becomes more limited.</td>
<td><strong>Consistent:</strong> The project site is located within the Orange City limits on a major arterial roadway and is surrounded by existing residential uses on three sides. Thus, the proposed project would be considered an “infill project.”</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>Goal 1.0 Provide recreational use, scenic enjoyment, and the protection of natural resources and features in open space areas.</td>
<td><strong>Consistent:</strong> The proposed project would provide acreage for open space and recreation use, which would include a creek trail. This acreage encompasses the Santiago Creek corridor, the most significant natural feature within the project site.</td>
</tr>
<tr>
<td></td>
<td>Policy 1.3 Promote development of additional open spaces and access points adjacent to waterways and planned trails.</td>
<td><strong>Consistent:</strong> The proposed project would provide acreage for open space and recreation use, including a greenway along Santiago Creek. Within the greenway would be a trail network, which would allow public access to the waterway.</td>
</tr>
</tbody>
</table>
### Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>No.</th>
<th>Goal/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 2.0</strong></td>
<td></td>
<td>Protect air, water, and energy resources from pollution and overuse.</td>
<td>Consistent: This EIR evaluates project impacts associated with air quality, hydrology and water quality, and utility systems and sets forth mitigation measures where necessary to protect resources.</td>
</tr>
<tr>
<td><strong>Policy 2.1</strong></td>
<td></td>
<td>Cooperate with the South Coast Air Quality Management District (SCAQMD) and other regional agencies to implement and enforce regional air quality management plans.</td>
<td>Consistent: This EIR uses SCAQMD’s guidance to assess air quality impacts. Refer to Section 3.3, Air Quality for further discussion.</td>
</tr>
<tr>
<td><strong>Policy 2.2</strong></td>
<td></td>
<td>Support alternative transportation modes, alternative technologies, and bicycle- and pedestrian-friendly neighborhoods to reduce emissions related to vehicular travel.</td>
<td>Consistent: The proposed project would develop pedestrian facilities consisting of sidewalks along streets and a trail network that would connect North Cannon Street to Santiago Oaks Regional Park. These facilities would facilitate alternative transportation modes of travel.</td>
</tr>
<tr>
<td><strong>Policy 2.13</strong></td>
<td></td>
<td>Control surface runoff water discharges into the stormwater conveyance system to comply with the City’s National Pollutant Discharge Elimination System (NPDES) Municipal Permit and other regional permits issued by the Santa Ana Regional Water Quality Control Board.</td>
<td>Consistent: The proposed project’s storm drainage system would comply with the applicable provisions of the regional permits for stormwater management. Refer to Section 3.9, Hydrology and Water Quality for further discussion.</td>
</tr>
<tr>
<td><strong>Policy 2.14</strong></td>
<td></td>
<td>Reduce pollutant runoff from new development by requiring use of the most low development impact practices and effective Best Management Practices (BMPs) currently available.</td>
<td>Consistent: The proposed project’s storm drainage system would incorporate Low Impact Development concepts that promote on-site percolation instead of off-site discharge. Refer to Section 3.9, Hydrology and Water Quality, for further discussion.</td>
</tr>
<tr>
<td><strong>Policy 2.15</strong></td>
<td></td>
<td>Minimize the amount of impervious surfaces and associated urban runoff pollutants in new development and significant redevelopment throughout the community.</td>
<td>Consistent: The proposed project would cluster residential development on approximately 40.7 acres of the site and preserve the remaining acreage as open space and recreational uses. These latter uses would be expected to be primarily natural, pervious surfaces and, thus, they would generate very little to no polluted runoff.</td>
</tr>
</tbody>
</table>
Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
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<th>Goal/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy 2.16</td>
<td></td>
<td>Protect in-stream habitat and natural stream and channel features.</td>
<td><strong>Consistent:</strong> The proposed project would establish a greenway along Santiago Creek, which would facilitate the protection of riparian habitat.</td>
</tr>
<tr>
<td>Goal 4.0</td>
<td></td>
<td>Conserve and protect wildlife habitat, plant and animal species of concern, and general biodiversity.</td>
<td><strong>Consistent:</strong> The proposed project would preserve more than half the site for open space and recreational use. This includes a greenway along Santiago Creek, which is the most significant biological feature within the project site.</td>
</tr>
<tr>
<td>Policy 4.1</td>
<td></td>
<td>Preserve and protect native and habitat-supporting plant resources throughout the City.</td>
<td><strong>Consistent:</strong> The proposed project would preserve more than half the site for open space and recreational use. This includes area that provides suitable habitat for special-status plant species.</td>
</tr>
<tr>
<td>Policy 4.2</td>
<td></td>
<td>Work with agencies, including the Orange County Flood Control District, to identify opportunities to enhance the natural qualities of Santiago Creek to protect habitat and reintroduce native plants and animals.</td>
<td><strong>Consistent:</strong> The proposed project would establish a greenway along Santiago Creek, which would permanently protect the creek habitat.</td>
</tr>
<tr>
<td>Policy 4.4</td>
<td></td>
<td>Repair or improve ecological and biological conditions in the urban and natural environments when reviewing proposals for site development and redevelopment, as well as public improvements.</td>
<td><strong>Consistent:</strong> The proposed project would preserve more than half the site for open space and recreational use. This includes a greenway along Santiago Creek, which is the most significant biological feature within the project site.</td>
</tr>
<tr>
<td>Policy 4.5</td>
<td></td>
<td>Protect the Santiago Creek and Santa Ana River corridors from premature urbanization to ensure the continued availability of important sand and gravel, flood control, water recharge, biological, and open space resources.</td>
<td><strong>Consistent:</strong> The proposed project would establish a greenway along Santiago Creek, which would permanently protect the waterway within the project site. Additionally, the economically recoverable mineral resources within the project site have largely been depleted and, thus, the redevelopment of the site to support residential, open space, and recreational uses would not be premature.</td>
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</table>
### Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>Goal/Policy Description</th>
<th>Consistency Determination</th>
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</thead>
<tbody>
<tr>
<td>Goal 6.0</td>
<td>Provide for alternative modes of transportation and access to recreational resources through a multi-use trail system that links the City’s parks and regional open space amenities.</td>
<td><strong>Consistent:</strong> The proposed project would develop a trail network that would connect North Cannon Street to Santiago Oaks Regional Park.</td>
</tr>
<tr>
<td>Policy 6.4</td>
<td>Link existing equestrian trails and provide outlets to open space areas, particularly in the northeast region of the City, to reach regional parks such as Santiago Oaks, Irvine, Peters Canyon, and the Cleveland National Forest.</td>
<td><strong>Consistent:</strong> The proposed project would develop a trail network that would connect North Cannon Street to Santiago Oaks Regional Park.</td>
</tr>
<tr>
<td>Public Safety Goal 2.0</td>
<td>Protect the City from flood-related risks and hazards.</td>
<td><strong>Consistent:</strong> The Santiago Creek channel contains 100-year flood hazard areas. The proposed project would establish a greenway along the creek corridor and locate new residential development a minimum of 50 feet from the creek centerline in order to protect hydrological values of the creek. Additionally, all dwelling units would be located above the 100-year flood elevation. Thus, the proposed project would not increase the risk for flooding along Santiago Creek.</td>
</tr>
<tr>
<td>Goal 4.0</td>
<td>Minimize risks to life, property, and the environment associated with producing, using, storing, or transporting hazardous materials.</td>
<td><strong>Consistent:</strong> The project site was previously used for surface mining activities and contains Total Petroleum Hydrocarbon—(TPH) and trichloroethylene—(TCE) impacted soils. This Draft EIR requires that these existing conditions be abated in accordance with California Department of Toxic Substances Control (DTSC) standards as part of the development of new residential uses. Refer to Section 3.8, Hazards and Hazardous Materials for further discussion.</td>
</tr>
</tbody>
</table>
Table 3.10-2 (cont.): General Plan Consistency Analysis

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<tr>
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</thead>
<tbody>
<tr>
<td>Policy 4.3</td>
<td></td>
<td>Identify hazardous materials dumpsites, and ensure that the sites are cleaned</td>
<td><strong>Consistent:</strong> The project site contains TPH- and TCE-impacted soil. This Draft EIR requires that these existing conditions be abated to DTSC standards as part of the development of new residential uses. Refer to Section 3.8, Hazards and Hazardous Materials for further discussion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in conformance with applicable federal and state laws prior to the establishment of new uses.</td>
<td></td>
</tr>
<tr>
<td>Goal 7.0</td>
<td></td>
<td>Improve community safety and reduce opportunities for criminal activity.</td>
<td><strong>Consistent:</strong> The proposed project’s open space and recreational facilities would be visible from surrounding land uses and would employ appropriate safety and security measures to deter criminal activity.</td>
</tr>
<tr>
<td>Policy 7.4</td>
<td></td>
<td>Ensure that community areas and amenities such as transit stops, sidewalks,</td>
<td><strong>Consistent:</strong> The proposed project’s open space and recreational facilities would be visible from surrounding land uses and would employ appropriate safety and security measures to deter criminal activity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>plazas, parks, trails, and bike paths are appropriately lighted, free of hiding</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>places, and frequently patrolled.</td>
<td></td>
</tr>
<tr>
<td>Goal 9.0</td>
<td></td>
<td>Provide safe pedestrian and bicycle environments.</td>
<td><strong>Consistent:</strong> The proposed project would develop pedestrian facilities consisting of sidewalks along streets and a trail network that would connect North Cannon Street to Santiago Oaks Regional Park. Additionally, project streets and the trails would be accessible to bicycles.</td>
</tr>
<tr>
<td>Noise</td>
<td>Goal 1.0</td>
<td>Promote a pattern of land uses compatible with current and future noise levels.</td>
<td><strong>Consistent:</strong> This EIR evaluates project-related noise impacts on surrounding land uses and requires mitigation to achieve acceptable standards. Refer to Section 3.12, Noise for further discussion.</td>
</tr>
<tr>
<td>Policy 1.1</td>
<td></td>
<td>Consider potential excessive noise levels when making land use planning</td>
<td><strong>Consistent:</strong> This EIR evaluates project-related noise impacts on surrounding land uses and requires mitigation to achieve acceptable standards. Refer to Section 3.12, Noise for further discussion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>decisions.</td>
<td></td>
</tr>
<tr>
<td>Policy 1.6</td>
<td></td>
<td>Require an acoustical study for proposed developments in areas where the</td>
<td><strong>Consistent:</strong> This EIR includes an acoustical study that prepared in accordance with the Noise Element</td>
</tr>
<tr>
<td></td>
<td></td>
<td>existing and projected</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>No.</th>
<th>Goal/Policy</th>
<th>Text</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>noise level exceeds or would exceed the maximum allowable levels identified in Table N-3. The acoustical study shall be performed in accordance with the requirements set forth within this Noise Element.</td>
<td></td>
<td></td>
<td>Requires. Refer to Section 3.12, Noise for further discussion.</td>
<td></td>
</tr>
<tr>
<td>Goal 2.0</td>
<td>Minimize vehicular traffic noise in residential areas and near noise-sensitive land uses.</td>
<td></td>
<td>Consistent: The proposed project minimizes vehicular traffic noise impacts on surrounding residential uses by taking access from East Santiago Canyon Road, an arterial roadway. No vehicular access would be taken from surrounding residential streets, thereby avoiding an increase in traffic noise levels in the most noise sensitive areas.</td>
<td></td>
</tr>
<tr>
<td>Policy 2.1</td>
<td>Encourage noise-compatible land uses along existing and future roadways, highways, and freeways.</td>
<td></td>
<td>Consistent: The proposed residential uses would be set back from East Santiago Canyon Road and would employ a solid noise barrier along the roadway to reduce exposure to traffic noise.</td>
<td></td>
</tr>
<tr>
<td>Goal 7.0</td>
<td>Minimize construction, maintenance vehicle, and nuisance noise in residential areas and near noise-sensitive land uses.</td>
<td></td>
<td>Consistent: Construction activities would be limited to the hours prescribed by the Municipal Code and would use temporary noise barriers to protect nearby residential uses from excessive noise. Refer to Section 3.12, Noise for further discussion.</td>
<td></td>
</tr>
<tr>
<td>Policy 7.3</td>
<td>Limit the hours of construction and maintenance operations located adjacent to noise-sensitive land uses.</td>
<td></td>
<td>Consistent: Construction activities would be limited to the hours prescribed by the Municipal Code.</td>
<td></td>
</tr>
<tr>
<td>Cultural Resources and Historic Preservation</td>
<td>Goal 4.0</td>
<td>Identify and preserve archaeological and cultural resources.</td>
<td></td>
<td>Consistent: This EIR included a field survey for archaeological resources and sets forth mitigation measures for the inadvertent discovery of such resources during construction. Refer to Section 3.4, Cultural Resources for further discussion.</td>
</tr>
<tr>
<td>Policy 4.2</td>
<td>Recognize the importance of Santiago Creek as an archaeological resource.</td>
<td></td>
<td>Consistent: The proposed project would establish a greenway along Santiago Creek, which would protect any archaeological resources located with the creek corridor.</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>No.</th>
<th>Goal/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td></td>
<td><strong>Goal 1.0</strong> Ensure water, sewer, and storm drain systems that meet the needs of residents and businesses.</td>
<td><strong>Consistent:</strong> The proposed project would be served with potable water service provided by the City of Orange and sewer service provided by Orange County Sanitation District (OCSD). The proposed project would install a storm drainage system that adheres to City design standards. These characteristics are consistent with the goal of providing utility systems that meet the needs of residents.</td>
</tr>
<tr>
<td>Policy 1.6</td>
<td></td>
<td>Require that new developments fund fair-share costs associated with City provision of water, sewer, and storm drain service and are consistent with City and service provider plans to complete needed improvements and funding capacity for such improvements.</td>
<td><strong>Consistent:</strong> The proposed project would be responsible for the full cost of all requisite water, sewer, and storm drainage facilities necessary to serve the project.</td>
</tr>
<tr>
<td>Goal 4.0</td>
<td></td>
<td>Ensure adequate provision of electricity, natural gas, telephone and data services and cable television.</td>
<td><strong>Consistent:</strong> The proposed project would be served with electricity service provided by Southern California Edison and natural gas service provided by the Southern California Gas Company. These characteristics are consistent with the goal of ensuring the adequate provision of utilities.</td>
</tr>
<tr>
<td>Policy 4.2</td>
<td></td>
<td>Continue to require utilities to be placed underground for new development.</td>
<td><strong>Consistent:</strong> All electrical and telecommunications connections would be located underground; no overhead facilities are proposed.</td>
</tr>
<tr>
<td>Urban Design</td>
<td></td>
<td><strong>Goal 6.0</strong> Encourage contextually appropriate infill development projects and property renovations.</td>
<td><strong>Consistent:</strong> The proposed project would be of an appropriate density and would provide a housing product similar to surrounding residential uses.</td>
</tr>
<tr>
<td>Policy 6.1</td>
<td></td>
<td>Encourage consistent high quality design of development projects, and provide development standards that ensure building and site design that is well integrated with infrastructure and circulation systems.</td>
<td><strong>Consistent:</strong> The proposed site plan is intended to promote land use compatibility with adjoining residential uses by clustering residential development on approximately 40 acres near East Santiago Canyon Road and preserving the remaining acreage.</td>
</tr>
</tbody>
</table>
Table 3.10-2 (cont.): General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>No.</th>
<th>Goal/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Policy 6.2</td>
<td>Consistent: The proposed project would enhance the surrounding area by redeveloping a former surface mining site to support residential, open space, and recreational uses. The project includes a greenway along Santiago Creek and a trail network connecting North Cannon Street and Santiago Oaks Regional Park.</td>
</tr>
</tbody>
</table>

As shown in the Impact Analysis discussion and Table 3.10-2, the proposed project is consistent with the City of Orange General Plan and all applicable goals and policies. As such, impacts from the General Plan Amendment would be less than significant.

**East Orange General Plan and Orange Park Acres Plan**

The proposed project entitlements would include a General Plan Amendment that would amend both the East Orange General Plan and Orange Park Acres Plan to incorporate the Trails at Santiago Creek Specific Plan. By doing so, the Trails at Santiago Creek Specific Plan would be included as part of these two existing plans, which would create vertically consistent documents that cover and include the proposed project.

**Plan Amendments Analysis**

**East Orange General Plan**

The East Orange General Plan, amended in 1976, was developed to guide future development patterns in the East Orange Area, it encompasses approximately 1,900 acres. Approximately 37 acres of the project site are located within the boundaries of the East Orange General Plan and are
designated “Regional Park.” While the proposed project would amend the approximately 37 acres that are within the East Orange General Plan to include the Trails at Santiago Creek Specific Plan, the 37 acres are approximately 2 percent of the East Orange General Plan total area, along with being on the fringe of the East Orange General Plan area, and would be consistent with the most recent City of Orange General Plan.

Additionally, the proposed project includes 68.5 acres of open park space, split into 40.2 acres of Greenway Open Space/Santiago Creek Riparian Corridor and 28.3 acres of Grasslands Open Space. Therefore, the proposed project would include 68.5 acres of open space/park uses adjacent to, and partially within, the East Orange General Plan; creating more open space in the vicinity than the 37 acres of the project site that are within the East Orange General Plan.

While the East Orange General Plan does not outline goals and policies similar to contemporary General Plans, concepts are proposed as part of the Proposed Plan. Table 3.10-3 evaluates project consistency with the applicable concepts of the East Orange General Plan.

### Table 3.10-3: East Orange General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Plan Section</th>
<th>Concept</th>
<th>Concept Text</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Plan</td>
<td>Land Use</td>
<td>It is believed that be designing, where possible, new developments to be compatible with existing residential densities, that appropriate continuity of architectural style, house size, and price range may be maintained.</td>
<td><strong>Consistent:</strong> The proposed project’s residential area would have a similar density to the nearby Jamestown, Mabury Ranch, Broadmoor Homes, Leadership Housing Specific Plan, and Pacesetter Homes area. Additionally, the proposed project would be built using the cluster concept described in the OPA Plan. Analysis of the residential area is provided below under “Proposed Residential Analysis.”</td>
</tr>
<tr>
<td>Proposed Plan</td>
<td>Open Space</td>
<td>When the proposed Concept Plan is fully implemented, East Orange will contain an assortment of open space categories.</td>
<td><strong>Consistent:</strong> The proposed project would include 68.5 acres of open space, split into 40.2 acres of Greenway Open Space/Santiago Creek Riparian Corridor and 28.3 acres of Grasslands Open Space.</td>
</tr>
<tr>
<td>Proposed Plan</td>
<td>Open Space</td>
<td>At another and much larger scale would be the Santiago Creek Greenbelt designated for the area currently used for sand and gravel extraction.</td>
<td><strong>Consistent:</strong> The area described in the section is the proposed project site, and the project proposes a 40.2-acre Greenway Open Space/Santiago Creek Riparian Corridor as part of the larger 68.5 acres of open space.</td>
</tr>
</tbody>
</table>
### Table 3.10-3 (cont.): East Orange General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Plan Section</th>
<th>Concept</th>
<th>Text</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Plan</td>
<td>Circulation</td>
<td>Although the design of the Plan limits vehicular access between residential areas, it emphasized pedestrian and equestrian movements between neighborhoods.</td>
<td><strong>Consistent:</strong> The proposed project would include a multitude of trails (Trail A through Trail F), which would serve to connect the proposed project and existing community to existing and future trails and bicycle lanes for recreation and commuting purposes, including equestrian use. Additionally, the proposed project would provide a sidewalk for pedestrian use along the frontage on East Santiago Canyon Road, where none currently exists.</td>
</tr>
<tr>
<td>Proposed Plan</td>
<td>Trail System</td>
<td>The trail system designed for the East Orange Area includes equestrian/hiking trails and bicycle trails...Although the primary orientation of the equestrian/hiking trails is to serve the recreational needs of the East Orange Area, it is anticipated that equestrian/hiking trails may furnish and alternative to the automobile, at least for some travel within the Study area.</td>
<td><strong>Consistent:</strong> The proposed project would include a multitude of trails (Trail A through Trail F), which would serve to connect the proposed project and existing community to existing and future trails and bicycle lanes for recreation and commuting purposes.</td>
</tr>
</tbody>
</table>

Source: FCS 2018.

As shown in the discussion in Table 3.10-3, the proposed project is consistent with the East Orange General Plan and all applicable concepts. As such, impacts to the East Orange General Plan would be less than significant.

**Orange Park Acres Plan**

The OPA Plan was adopted on December 26, 1973, it encompasses approximately 1,794 acres. Approximately 39 acres of the project site are located within the boundaries of the OPA Plan, and are designated as “Open Space.” While the proposed project would amend the approximately 39 acres that are within the OPA Plan to include the Trails at Santiago Creek Specific Plan, the 39 acres are approximately 3 percent of the OPA Plan total area, along with being on the fringe of the OPA Plan area, and would be consistent with the most recent City of Orange General Plan.

Additionally, the proposed project includes 68.5 acres of open park space, split into 40.2 acres of Greenway Open Space/Santiago Creek Riparian Corridor and 28.3 acres of Grasslands Open Space. Therefore, the proposed project would include 68.5 acres of open space/park uses adjacent to, and
partially within, the OPA Plan; creating more open space in the vicinity than the 39 acres of the project site that are within the OPA Plan.

While the OPA Plan does not outline goals and policies similar to contemporary General Plans, the OPA Plan does outline goals, objectives, and policies. Table 3.10-4 evaluates project consistency with the applicable objectives and policies of the OPA Plan.

**Table 3.10-4: OPA Plan Consistency Analysis**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Objective/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish a Distinctive Community Theme</td>
<td>Objective Provide a wholesome rural atmosphere emphasizing a quiet seclusion close to nature.</td>
<td><strong>Consistent:</strong> The proposed project area encompasses approximately 109.2 acres, 68.5 acres of which would be dedicated to open space. The residential area of the project would be separated from adjacent residential developments by open space, emphasizing a quiet seclusion and close to the nature of the open space area. Additionally, the rural aspect would be maintained by the inclusion of an equestrian trail system.</td>
</tr>
<tr>
<td>Objective Foster compatible residential development within the area visually and functionally.</td>
<td><strong>Consistent:</strong> The proposed project’s residential area would have a similar density to the nearby Jamestown, Mabury Ranch, Broadmoor Homes, Leadership Housing Specific Plan, and Pacesetter Homes, located in OPA. Additionally, the proposed project would be built using the cluster concept described in the OPA Plan. Analysis of the residential area is provided below under “Proposed Residential Analysis.”</td>
<td></td>
</tr>
<tr>
<td>Objective Link the various areas through a system of trails and identifiable streetscape landscaping.</td>
<td><strong>Consistent:</strong> The proposed project would include a multitude of trails (Trail A through Trail F), which would serve to connect the proposed project and existing community to existing and future trails and bicycle lanes for recreation and commuting purposes, including equestrian use. Additionally, the proposed project would provide a sidewalk for pedestrian use along the frontage on East Santiago Canyon Road, where none currently exists.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.10-4 (cont.): OPA Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Goal</th>
<th>Type</th>
<th>Objective/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Promote a distinctive “lifestyle” which allows for a diversity of activities.</td>
<td><strong>Consistent:</strong> The proposed project would include a multitude of trails (Trail A through Trail F), which would serve to connect the proposed project and existing community to existing and future trails and bicycle lanes for recreation and commuting purposes, including equestrian use. Additionally, the proposed project would provide a sidewalk for pedestrian use along the frontage on East Santiago Canyon Road, where none currently exists. Therefore, the proposed project would serve a diversity of activities from walking to horse riding.</td>
<td></td>
</tr>
<tr>
<td>Preserve and Enhance Natural Features</td>
<td>Objective</td>
<td>Identify and preserve the positive features of the major drainage courses and bodies of water within the area utilizing them for recreational purposes where appropriate.</td>
<td><strong>Consistent:</strong> The Santiago Creek and Handy Creek are two drainage courses within the proposed project area, the project proposes a 40.2-acre Greenway Open Space/Santiago Creek Riparian Corridor, including preserving the Handy Creek drainage area as greenspace, as part of the larger 68.5 acres of open space.</td>
</tr>
<tr>
<td>Policies for Orange Park Acres</td>
<td>Policy</td>
<td>Provide for continuous trail linkages throughout OPA connecting to County proposed trails, major land use elements, and natural features such as Santiago Creek and Handy Creek.</td>
<td><strong>Consistent:</strong> The proposed project would include a multitude of trails (Trail A through Trail F), which would serve to connect the proposed project and existing community to existing and future trails and bicycle lanes for recreation and commuting purposes, including equestrian use. Additionally, the project proposes a 40.2-acre Greenway Open Space/Santiago Creek Riparian Corridor, including preserving the Handy Creek drainage area as greenspace, as part of the larger 68.5 acres of open space.</td>
</tr>
<tr>
<td>Policy</td>
<td>Preserve Santiago Creek as a balanced ecological system and riparian area, maintaining the diversity of plant and vertebrate</td>
<td><strong>Consistent:</strong> The proposed project includes a 40.2-acre Greenway Open Space/Santiago Creek Riparian Corridor, as part of the</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.10-4 (cont.): OPA Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Goal</th>
<th>Type</th>
<th>Objective/Policy</th>
<th>Consistency Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>species while allowing for light recreational uses such as equestrian and hiking trails.</td>
<td>Consistent: The area described in the policy is the proposed project site, and the project proposes a 40.2-acre Greenway Open Space/Santiago Creek Riparian Corridor as part of the larger 68.5 acres of open space.</td>
</tr>
<tr>
<td>Policy</td>
<td>Promote the phasing-out of gravel pit operations along Santiago Creek and promote restoration of natural amenities in the area.</td>
<td>Consistent: The proposed project area encompasses approximately 109.2 acres, 68.5 acres of which would be dedicated to open space. The residential area of the project would be separated from adjacent residential developments by open space, emphasizing a quiet seclusion and close to the nature of the open space area. Additionally, the rural aspect would be maintained by the inclusion of an equestrian trail system.</td>
<td></td>
</tr>
<tr>
<td>Policy</td>
<td>Provide for landscape, greenbelt or open space buffer between differing housing types.</td>
<td>Consistent: The proposed project area encompasses approximately 109.2 acres, 68.5 acres of which would be dedicated to open space. The residential area of the project would be separated from adjacent residential developments by open space, emphasizing a quiet seclusion and close to the nature of the open space area. Additionally, the rural aspect would be maintained by the inclusion of an equestrian trail system.</td>
<td></td>
</tr>
</tbody>
</table>

Source: FCS 2018.

As shown in the discussion in Table 3.10-4, the proposed project is consistent with the OPA Plan and all applicable objectives and policies. As such, impacts to the OPA Plan would be less than significant.

**Proposed Residential Area Analysis**

The proposed project would cluster the residential area on approximately 40.7 acres of the area, leaving approximately 68.5 acres as open space. Clustering the residential area on 37.3 percent of the project site allows for the majority of the site, 62.7 percent, to be preserved as open space. Consolidating this portion of the proposed project will enhance the equestrian and rural lifestyle of the area. In order to ensure the proposed project follows the City of Orange Zoning Code, the residential area would follow R-1-8 and R-1-10 (single-family residential) zoning. Additionally, both the Development Agreement and the Trails at Santiago Creek Specific Plan cap the number of residential units at 128, allowing for no more than 128 units to be built. Table 3.10-5 shows the Development Standards for R-1-8 and R-1-10 (Single-Family Residential) development in detail.
Table 3.10-5: City of Orange Zoning Code R-1-8 and R-1-10 Development Standards

<table>
<thead>
<tr>
<th>Zoning</th>
<th>Units Per Lot</th>
<th>Minimum Lot Area (Sq. Ft.)</th>
<th>Minimum Lot Frontage (Feet)</th>
<th>Minimum Lot Depth (Feet)</th>
<th>Minimum Yard Setback (Feet)</th>
<th>Maximum Height (Feet)</th>
<th>Maximum Floor Area Ratio</th>
<th>Minimum Usable Open Space (Sq. Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-1-8</td>
<td>1</td>
<td>8,000</td>
<td>60</td>
<td>100</td>
<td>20</td>
<td>5</td>
<td>20</td>
<td>32—2 stories</td>
</tr>
<tr>
<td>R-1-10</td>
<td>1</td>
<td>10,000</td>
<td>80</td>
<td>100</td>
<td>20</td>
<td>5</td>
<td>20</td>
<td>32—2 stories</td>
</tr>
</tbody>
</table>


Table 3.10-6 provides a breakdown of the proposed project’s residential lots and lot sizes, and which City of Orange Development Standards will apply.

Table 3.10-6: Residential Lot Sizes and Applicable Zoning

<table>
<thead>
<tr>
<th>Planning Area Location</th>
<th>Lots</th>
<th>Lot Size</th>
<th>Applicable Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>82</td>
<td>8,000</td>
<td>R-1-8</td>
</tr>
<tr>
<td>C1 and C2</td>
<td>17</td>
<td>9,200</td>
<td>R-1-8</td>
</tr>
<tr>
<td>C2</td>
<td>29</td>
<td>10,000</td>
<td>R-1-10</td>
</tr>
</tbody>
</table>


The precedence for allowing residential developments in the Orange Park Acres Plan with less-than-one-acre minimum lots under clustered zoning has been established by the Orange Park Association’s previous support for Broadmoor Homes, Leadership Housing Specific Plan (Pheasant Run), and Pacesetter Homes (The Wilderness) projects (Appendix D). More specifically, in May 2003, the Orange Park Acres Board of Directors Supported the Fieldstone/Sully Miller Project consisting of 189 8,000-square-foot lot minimum homes. OPA felt this was a good project that had gotten better with time.

Additional information on the Broadmoor Homes, Leadership Housing Specific Plan (Pheasant Run), and Pacesetter Homes (The Wilderness) projects is provided below, note that the project lots are all less-than-one-acre:

**Broadmoor Homes**

The Broadmoor Homes development, located on the northwest portion of Chapman Avenue and Newport Boulevard, within the Orange Park Acres Plan, was approved by the City of Orange City Council on August 27, 1974. The approved project was for 237 units total, with 35 units on an R-1-40 zoning with 0.8 dwellings per acre and 202 units on an R-1-15 (single-family homes on 15,000-square-foot lots) zoning with 2.66 dwellings per acre.
Appendix L.1 provides the City Council Approval and Staff Report for the Broadmoor Homes development.

**Leadership Housing Specific Plan (Pheasant Run)**
The Leadership Housing Specific Plan, located on the northeast portion of Orange Park Boulevard and Chapman Avenue, within the Orange Park Acres Plan, was approved through a Conditional Use Permit for a Planned Unit Development by the City of Orange City Council on March 11, 1975. The approved project was for 83 units total, with 35 units on an R-1-40 zoning with one dwelling per acre, and 48 units on an R-1-10 zoning with 2.4 dwellings per acre. Homes on the R-1-10 zoning have lots that vary from 6,000 to 10,000 square feet.

Appendix L.2 provides the City Council Approval and Staff Report for the Leadership Housing Specific Plan.

**Pacesetter Homes (The Wilderness)**
The Pacesetter Homes development, located on the northeast corner of Windes Drive and East Santiago Canyon Road, was first approved by the City of Orange City Council on July 9, 1974. The approved project was for 48 attached single-family dwelling units and eight detached single-family dwelling units, located on a 28.3-acre site, yielding 1.87 units per acre on a site that was rezoned from R-1-40 (single-family homes on 40,000-square-foot lots) to R-1-20 (single-family homes on 20,000-square-foot lots).

Appendix L.3 provides the City Council Approval and CUP for the Pacesetter Homes development.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Municipal Code Consistency**

| Impact LUP-2: | The project would not conflict with the applicable provisions of the Orange Municipal Code. |

**Impact Analysis**
The project site is currently zoned “S-G (Sand and Gravel)” and “R-1-8 (Single Family Residential 8,000 square feet)” by the Orange Zoning Code. The “S-G (Sand and Gravel)” land use designation reflects the previous surface mining activities and the current sand and gravel operations that occur on the south side of Santiago Creek. The “R-1-8 (Single Family Residential 8,000 square feet)” applies to the portion of the site north of Santiago Creek, adjacent to Mabury Avenue.
The proposed project involves the development of 128 dwelling units on 40.7 acres within the area designated “S-G (Sand and Gravel)” and the preservation of the remaining acreage (which overlap with the “S-G (Sand and Gravel)” and “R-1-8 (Single Family Residential 8,000 square feet)” designations) as open space and recreation uses. Accordingly, the applicant is proposing to rezone the entire site to “SP (Specific Plan).”

These land use changes are necessary to allow the proposed development on the site, and are consistent and compatible with the other surrounding residential land use designations; refer to Table 3.10-2. With implementation of the proposed Zone Change, the project will be consistent with the Orange Municipal Code.

Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Conservation Plan Consistency**

| Impact LUP-3: | The project would not conflict with any applicable habitat conservation plan or natural communities conservation plan. |

**Impact Analysis**
The project site is within the boundaries of the Orange County Central and Coastal Subregion NCCP/HCP (Exhibit 3.4-6). The NCCP/HCP has an objective of assembling a 38,000-acre preserve in Orange County consisting of the highest value biological habitat.

Within the project site, the Santiago Creek corridor contain riparian habitat and the upland areas north of the creek contain marginal Coastal Sage Scrub habitat, which are considered to have high biological value. These areas are contemplated to be preserved as open space and, therefore, would be available for inclusion in the preserve. Additionally, the 40.7 acres proposed for residential development coincide with the surface mining areas and do not contain any significant biological habitat. For these reasons, no conflicts with the NCCP/HCP would occur. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
3.11 - Mineral Resources

3.11.1 - Introduction
This section describes the existing mineral resources setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information provided by the California State Mining and Geology Board and the City of Orange.

3.11.2 - Environmental Setting

Mineral Resource Extraction Activities
The project site was used primarily for surface mining of sand and gravel, aggregates mining, and ancillary uses starting from 1919, and ceased before January 1, 1976. Surface mining activities ceased before January 1, 1976, and all ancillary uses were removed in the same year. The project site currently supports a sand and gravel operator in accordance with the existing Sand and Gravel zoning.

Approximately 40 acres between Santiago Creek and East Santiago Canyon Road, remnants of the mining operation remain, and it is the location of the ongoing sand and gravel operation. This area is characterized by soil piles, berms, and unpaved roads. An approximately 5-acre area near East Santiago Canyon Road supports a materials recycling operation that includes apparatus for crushing boulders, bricks, rocks, and similar materials for recycling. Materials used for these operations originated primarily from off-site sources. The materials generated by these operations have historically been used both on-site, and transported off-site. Ancillary uses included administration and maintenance buildings, caretaker residence, material testing laboratory, driver’s shack, rock crushing facilities, several above-ground and below-ground fuel storage tanks, and two hot-mix asphalt plants.

Additionally, the previously mined portions of the site were “backfilled,” in which unsuitable materials were excavated and replaced with fill, pursuant to a grading permit issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material would be imported to the site during the process, including concrete, asphalt, and rock that would be crushed on-site. Approximately 2,000 cubic yards of material was anticipated to be excavated from the site for reuse and would be blended with the crushed import material for a total of 225,000 cubic yards of backfill. In 2015, the operator voluntarily temporarily suspended operations on the site, and limited rock crushing operations to a total of 15 consecutive business days in any 6-month period. The operator reserved the right to resume all operations consistent with the Sand and Gravel zoning.

Mineral Resource Designations
The California State Mining and Geology Board “Regionally Significant Construction Aggregation Resource Areas in the Orange County-Temescal Valley and San Gabriel Valley Production-Consumption Region, Santa Ana River and Lower Santiago Creek Resource Areas” indicates that the project site is within Mineral Resource Zone 2 for aggregate.
The City of Orange General Plan maps a portion of the project site as “Resource Area” and the Orange Zoning Ordinance zones a portion of the site as “S-G (Sand and Gravel Extraction).”

### 3.11.3 - Regulatory Framework

#### State

**Surface Mining and Reclamation Act**

The Surface Mining and Reclamation Act (SMARA) provides guidelines for the classification and designation of mineral lands. The California Geological Survey has produced a report and a Mineral Land Classification Map. The Classification Map designates areas where important Production-Consumption deposits occur, and are categorized in Mineral Resource Zones (MRZs). MRZs are defined as follows:

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- **MRZ-3:** Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- **MRZ-4:** Areas where available information is inadequate for assignment to another MRZ zone.

According to SMARA, mineral lands include areas containing sand and gravel; related materials are known collectively as aggregate resources. SMARA requires all cities to contain a mineral resource management policy that:

1. Recognizes mineral information transmitted by the State Mining and Geology Boards;
2. Assists in the management of land use affecting areas of regional significance; and,
3. Emphasizes the conservation and development of identified mineral resources.

#### Local

**City of Orange**

**General Plan**

The City of Orange General Plan recognizes the State’s Mineral Resource Zone 2 designations along Santiago Creek and designates these areas as “Resource Area,” which allow for aggregate extraction or recreation uses.

### 3.11.4 - Methodology

FCS reviewed the California State Mining and Geology Board “Regionally Significant Construction Aggregation Resource Areas in the Orange County-Temescal Valley and San Gabriel Valley Production-Consumption Region, Santa Ana River and Lower Santiago Creek Resource Areas” and the City of Orange General Plan for information about mineral resources.
3.11.5 - Thresholds of Significance

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether land use and planning impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other local land use plan?

3.11.6 - Project Impacts and Mitigation Measures

Loss of Minerals of Statewide Importance

| Impact MIN-1: | The proposed project would not result the in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. |

**Impact Analysis**

The project site is located within Mineral Resource Zone 2 for aggregate as designated by the State Mining and Geology Board. However, in 2003, the Office of Mine Reclamation concluded that surface mining operations ceased on the project site prior to January 1, 1976 (Appendix M).

Under SMARA, operators of surface mining operations are required to obtain a permit for operations post-1976, and are required to file a mining reclamation plan for post-1975 mining operations. As such, a mining reclamation plan under SMARA is not required for the project site. Additionally, mined areas of the site have been backfilled, which effectively precludes the resumption of surface mining operations.

The Geotechnical Investigation prepared for the project site indicates that it has been mined of economic aggregate deposits, and the remaining deposits that are of potential economic value are infeasible to mine because of the limited volume of the localized deposits, expense of removing the overburden (pond deposits), and difficulty associated with excavation logistics. Thus, resuming aggregate mining operations on the project site would not be economically feasible and the resource is effectively depleted.

In summary, the development of the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State because the economically recoverable aggregate has been previously mined and put to beneficial use. The remaining aggregate is not economically recoverable and therefore would not be available to benefit the region or the residents of the State. Therefore, the loss of mineral resources would be considered a less than significant impact.

**Level of Significance Before Mitigation**

Less than significant impact.
Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Loss of Mineral Resources of Local Importance

Impact MIN-2: The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other local land use plan.

Impact Analysis
The City of Orange General Plan maps a portion of the project site as “Resource Area” and the Orange Zoning Ordinance zones a portion of the site as “S-G (Sand and Gravel Extraction).” These designations reflect the project site’s past support of surface mining activities, which ceased prior to January 1, 1976. However, while the City of Orange General Plan and Zoning Ordinance designates the site to allow for the historical pre-1976 surface mining uses to occur, they do not signify whether the project site has economically recoverable aggregate deposits. The Geotechnical Investigation for the project site indicates that it has been mined of economic aggregate deposits, and the remaining deposits that are of potential economic value are not feasible to mine because of the limited volume of the localized deposits, expense of removing the overburden (pond deposits), and difficulty associated with excavation logistics. Thus, resuming aggregate mining operations on the project site would not be economically feasible and the resource is effectively depleted.

As such, the proposed General Plan Amendment and Rezone would remove these designations and replace them with designations that are non-mining in nature. Impacts would be less than significant.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.
3.12 - Noise

3.12.1 - Introduction
This section describes the existing hydrology and water quality setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on noise modeling performed by FirstCarbon Solutions (FCS). The noise modeling input assumptions and output data used in this analysis are provided in Appendix N.

3.12.2 - Environmental Setting

Noise Fundamentals

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit that expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear. Table 3.12-1 shows some representative noise sources and their corresponding noise levels in dBA.

### Table 3.12-1: Typical A-Weighted Noise Levels

<table>
<thead>
<tr>
<th>Indoor Noise Source</th>
<th>Noise Level (dBA)</th>
<th>Outdoor Noise Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Threshold of Hearing in Laboratory)</td>
<td>0</td>
<td>—</td>
</tr>
<tr>
<td>Library</td>
<td>30</td>
<td>Quiet Rural Nighttime</td>
</tr>
<tr>
<td>Refrigerator Humming</td>
<td>40</td>
<td>Quiet Suburban Nighttime</td>
</tr>
<tr>
<td>Quiet Office</td>
<td>50</td>
<td>Quiet Urban Daytime</td>
</tr>
<tr>
<td>Normal Conversation at 3 feet</td>
<td>60</td>
<td>Normal Conversation at 3 feet</td>
</tr>
<tr>
<td>Vacuum Cleaner at 10 feet</td>
<td>70</td>
<td>Gas Lawn Mower at 100 feet</td>
</tr>
<tr>
<td>Hair Dryer at 1 foot</td>
<td>80</td>
<td>Freight Train at 50 feet</td>
</tr>
<tr>
<td>Food Blender at 3 feet</td>
<td>90</td>
<td>Heavy-duty Truck at 50 feet</td>
</tr>
<tr>
<td>Inside Subway Train (New York)</td>
<td>100</td>
<td>Jet Takeoff at 2,000 feet</td>
</tr>
<tr>
<td>Smoke Detector Alarm at 3 feet</td>
<td>110</td>
<td>Unmuffled Motorcycle</td>
</tr>
<tr>
<td>Rock Band near stage</td>
<td>120</td>
<td>Chainsaw at 3 feet</td>
</tr>
<tr>
<td>—</td>
<td>130</td>
<td>Military Jet Takeoff at 50 feet</td>
</tr>
<tr>
<td>—</td>
<td>140</td>
<td>(Threshold of Pain)</td>
</tr>
</tbody>
</table>

Source: Compiled by FirstCarbon Solutions, 2014.
**Noise Descriptors**

Noise equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level ($L_{eq}$) represents a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. The peak traffic hour $L_{eq}$ is the noise metric used by the California Department of Transportation (Caltrans) for traffic noise impact analyses.

The Day-Night Average Level ($L_{dn}$) is the weighted average of the intensity of a sound, with corrections for time of day and averaged over 24 hours. The time of day corrections require the addition of 10 decibels to sound levels at night between 10:00 p.m. and 7:00 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the $L_{dn}$, it has another addition of 4.77 decibels to sound levels during the evening hours between 7:00 p.m. and 10:00 p.m. These additions are made to the sound levels at these periods because, compared with daytime hours, there is a decrease in the ambient noise levels during the evening and nighttime hours, which creates an increased sensitivity to sounds. For this reason, the sound seems louder in the evening and nighttime hours and is weighted accordingly. Due to the additional evening penalty, CNEL values are always higher than $L_{dn}$ values; however, the difference is usually between 0 and 1 dB.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level ($L_{max}$), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by $L_{max}$ for short-term noise impacts. $L_{max}$ reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Noise standards in terms of percentile exceedance levels, $L_{xt}$, are often used together with the $L_{max}$ for noise enforcement purposes. When specified, the percentile exceedance levels are not to be exceeded by an offending sound over a stated time period. For example, the $L_{10}$ noise level represents the level exceeded 10 percent of the time during a stated period. The $L_{50}$ noise level represents the median noise level (which means that the noise level exceeds the $L_{50}$ noise level half of the time, and is less than this level half of the time). The $L_{90}$ noise level represents the noise level exceeded 90 percent of the time and is considered the lowest noise level experienced during a monitoring period. The $L_{90}$ noise level is normally referred to as the background noise level. For a relatively steady noise, the measured $L_{eq}$ and $L_{50}$ are approximately the same.

**Tone Noise**

A pure tone noise is a noise produced at a single frequency, and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less
Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source, ground absorption, atmospheric effects and refraction, and shielding by natural and man-made features. Sound from point sources such as air conditioning condensers radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). However, in order for the point source drop-off rate to provide accurate results, the nearest receiver needs to be placed a minimum distance away from the source that is greater than double the width of the noise source. Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth. For line sources, a 4.5 dBA/DD is typically observed for soft-site conditions compared with the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis. Further, the study area is located in a semi-rural environment, and either landscaping or native vegetation exists along the sides of all analyzed roadways, which is more appropriately represented by soft-site conditions.

Traffic Noise Prediction

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of traffic noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is “barely perceptible.” For reference, a doubling of perceived noise levels would require an increase of approximately 10 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

Construction Noise Fundamentals

Construction is performed in discrete steps or phases, each of which has its own mix of equipment, and consequently, its own noise characteristics. Typical phases of construction include demolition,
excavation, grading, and building construction. These various sequential phases would change the character of the noise generated on each construction site and, therefore, would change the noise levels as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Construction-period noise levels are higher than background ambient noise levels, but eventually cease once construction is complete. Table 3.12-2 shows typical noise levels of construction equipment as measured at a distance of 50 feet from the operating equipment.

**Table 3.12-2: Typical Construction Equipment Maximum Noise Levels, L_{max}**

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Impact Device? (Yes/No)</th>
<th>Specification Maximum Sound Levels for Analysis (dBA at 50 feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pickup Truck</td>
<td>No</td>
<td>55</td>
</tr>
<tr>
<td>Pumps</td>
<td>No</td>
<td>77</td>
</tr>
<tr>
<td>Air Compressors</td>
<td>No</td>
<td>80</td>
</tr>
<tr>
<td>Backhoe</td>
<td>No</td>
<td>80</td>
</tr>
<tr>
<td>Front-End Loaders</td>
<td>No</td>
<td>80</td>
</tr>
<tr>
<td>Portable Generators</td>
<td>No</td>
<td>82</td>
</tr>
<tr>
<td>Dump Truck</td>
<td>No</td>
<td>84</td>
</tr>
<tr>
<td>Tractors</td>
<td>No</td>
<td>84</td>
</tr>
<tr>
<td>Auger Drill Rig</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Concrete Mixer Truck</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Cranes</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Dozers</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Excavators</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Graders</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Jackhammers</td>
<td>Yes</td>
<td>85</td>
</tr>
<tr>
<td>Man Lift</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Paver</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Pneumatic Tools</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Rollers</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Scrapers</td>
<td>No</td>
<td>85</td>
</tr>
<tr>
<td>Concrete/Industrial Saws</td>
<td>No</td>
<td>90</td>
</tr>
<tr>
<td>Impact Pile Driver</td>
<td>Yes</td>
<td>95</td>
</tr>
<tr>
<td>Vibratory Pile Driver</td>
<td>No</td>
<td>95</td>
</tr>
</tbody>
</table>

Groundborne Vibration Fundamentals

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Vibration Descriptors

Several different methods are used to quantify vibration amplitude, such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels; it is denoted as (Lv) and is based on the rms velocity amplitude. A commonly used abbreviation is “VdB,” which in this text, is when Lv is based on the reference quantity of 1 microinch per second.

Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans, whose threshold of perception is around 65 VdB. Common sources that may produce perceptible vibrations are construction equipment, steel-wheeled trains, and traffic on rough roads, while traffic on smooth roads rarely produces perceptible groundborne noise or vibration.

Vibration Propagation

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground’s surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a push-pull fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or side-to-side and perpendicular to the direction of propagation. All three types of vibration propagation result in earth movement that can be measured through the use of a vibration meter; however, a vibration meter only captures the amount of movement and cannot decipher between the different types of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature, and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil, but has been
shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

Propagation of vibration through soil can be calculated using the vibration reference equation of

$$PPV = PPV_{\text{ref}} \times (25/D)^n \text{ (in/sec)}$$

Where:

- $PPV$ = reference measurement at 25 feet from vibration source
- $D$ = distance from equipment to property line
- $n$ = vibration attenuation rate through ground

According to Chapter 12 of the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment (Federal Transit Administration, 2006) manual, an “$n$” value of 1.5 is recommended to calculate vibration propagation through typical soil conditions.

**Construction Vibration Fundamentals**

Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. However, construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, project-related impacts are expressed in terms of PPV. Typical vibration source levels from construction equipment are shown in Table 3.12-3.

**Table 3.12-3: Vibration Levels of Construction Equipment**

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>PPV at 25 Feet (inches/second)</th>
<th>RMS Velocity in Decibels (VdB) at 25 Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Trucks</td>
<td>0.001</td>
<td>57</td>
</tr>
<tr>
<td>Scraper</td>
<td>0.002</td>
<td>58</td>
</tr>
<tr>
<td>Bulldozer—small</td>
<td>0.003</td>
<td>58</td>
</tr>
<tr>
<td>Jackhammer</td>
<td>0.035</td>
<td>79</td>
</tr>
<tr>
<td>Concrete Mixer</td>
<td>0.046</td>
<td>81</td>
</tr>
<tr>
<td>Concrete Pump</td>
<td>0.046</td>
<td>81</td>
</tr>
<tr>
<td>Paver</td>
<td>0.046</td>
<td>81</td>
</tr>
<tr>
<td>Pickup Truck</td>
<td>0.046</td>
<td>81</td>
</tr>
<tr>
<td>Auger Drill Rig</td>
<td>0.051</td>
<td>82</td>
</tr>
<tr>
<td>Backhoe</td>
<td>0.051</td>
<td>82</td>
</tr>
<tr>
<td>Crane (Mobile)</td>
<td>0.051</td>
<td>82</td>
</tr>
<tr>
<td>Excavator</td>
<td>0.051</td>
<td>82</td>
</tr>
<tr>
<td>Grader</td>
<td>0.051</td>
<td>82</td>
</tr>
<tr>
<td>Loader</td>
<td>0.051</td>
<td>82</td>
</tr>
</tbody>
</table>
Table 3.12-3 (cont.): Vibration Levels of Construction Equipment

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>PPV at 25 Feet (inches/second)</th>
<th>RMS Velocity in Decibels (VdB) at 25 Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loaded Trucks</td>
<td>0.076</td>
<td>86</td>
</tr>
<tr>
<td>Bulldozer—Large</td>
<td>0.089</td>
<td>87</td>
</tr>
<tr>
<td>Caisson drilling</td>
<td>0.089</td>
<td>87</td>
</tr>
<tr>
<td>Vibratory Roller (small)</td>
<td>0.101</td>
<td>88</td>
</tr>
<tr>
<td>Compactor</td>
<td>0.138</td>
<td>90</td>
</tr>
<tr>
<td>Clam shovel drop</td>
<td>0.202</td>
<td>94</td>
</tr>
<tr>
<td>Vibratory Roller (large)</td>
<td>0.210</td>
<td>94</td>
</tr>
<tr>
<td>Pile Driver (impact-typical)</td>
<td>0.644</td>
<td>104</td>
</tr>
<tr>
<td>Pile Driver (impact-upper range)</td>
<td>1.518</td>
<td>112</td>
</tr>
</tbody>
</table>

Source: Compilation of scientific and academic literature, generated by FTA and FHWA.

Existing Conditions

The project site consists of 12 parcels and is bisected by Santiago Creek in an east-west direction. The approximately 109.2-acre project site is located at 6118 East Santiago Canyon Road in the Orange Park Acres neighborhood of the City of Orange, Orange County, California. The project site is surrounded by the Villa Park Landfill Site, and North Cannon Street (west), single-family residential and Mabury Avenue (north), the Santiago Creek corridor and single-family residential (east), and East Santiago Canyon Road (south). The approximately 109.2-acre project site contains disturbed, gently sloping undeveloped land that previously supported mining activities.

Existing Noise Sources

The predominant existing noise source at the project site would be on-site activities of aggregate mining, materials recycling, and backfilling and firewood storage activities. Traffic noise along East Santiago Canyon Road is the dominant noise source in the project vicinity. To a lesser extent, other noise sources in the project vicinity include stationary noise sources such as typical neighbor maintenance and leisure activities, recreational activity at the school to the south and Santiago Creek open space to the north and equestrian facilities to the south. The existing ambient noise environment is considered relative quiet in the existing residential areas located further away from East Santiago Canyon Road.

Existing Traffic Noise

The most significant noise source in the project vicinity is traffic on East Santiago Canyon Road. In order to provide a baseline of the existing traffic noise levels in the proposed project study area, the SoundPlan Model was used to calculate the existing noise levels along roadway segments in the project vicinity, which are summarized below in Table 3.12-4. This model requires parameters,
including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The daily traffic volumes were obtained from *The Trails at Santiago Creek Draft Traffic Impact Analysis*, (Traffic Analysis) prepared by Linscott Law & Greenspan, December 2017, as presented in Section 3.16, Transportation and Traffic. The model’s inputs and outputs and summary of the modeling results for Existing traffic conditions—are provided in Appendix N of this document. The SoundPlan model was also used to produce a noise contour map showing the existing dBA CNEL in the project vicinity and is shown below in Exhibit 3.12-1, Existing Noise Contour Map (dBA CNEL).

### Table 3.12-4: Existing Traffic Noise Levels Along Modeled Roadways

<table>
<thead>
<tr>
<th>Roadway—Segment Description</th>
<th>CNEL (dBA) at 50 feet from outermost travel lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannon Street—North of Santiago Canyon Road</td>
<td>67</td>
</tr>
<tr>
<td>Santiago Canyon Road—East of Cannon Street</td>
<td>65</td>
</tr>
<tr>
<td>Mabury Avenue—East of Serrano Avenue</td>
<td>53</td>
</tr>
</tbody>
</table>


### 3.12.3 - Regulatory Framework

**Federal**

**United States Environmental Protection Agency (EPA)**

In 1972, Congress enacted the Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss levels) and welfare (annoyance levels) categories, as shown in Table 3.12-5. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of achieving the levels.

### Table 3.12-5: Summary of EPA Recommended Noise Levels to Protect Public Welfare

<table>
<thead>
<tr>
<th>Effect</th>
<th>Level</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing loss</td>
<td>$L_{eq}(24) \leq 70$ dB</td>
<td>All areas.</td>
</tr>
<tr>
<td>Outdoor activity interference and annoyance</td>
<td>$L_{dn} \leq 55$ dB</td>
<td>Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.</td>
</tr>
<tr>
<td></td>
<td>$L_{eq}(24) \leq 55$ dB</td>
<td>Outdoor areas where people spend limited amounts of time, such as schoolyards, playgrounds, etc.</td>
</tr>
<tr>
<td>Indoor activity interference and annoyance</td>
<td>$L_{eq} \leq 45$ dB</td>
<td>Indoor residential areas.</td>
</tr>
<tr>
<td></td>
<td>$L_{eq}(24) \leq 45$ dB</td>
<td>Other indoor areas with human activities such as schools, etc.</td>
</tr>
</tbody>
</table>

Exhibit 3.12-1
Existing Noise Contour Map (dBA CNEL)

Source: SoundPlan Version 7.4

EXHIBIT 3.12-1
Existing Noise Contour Map (dBA CNEL)

Noise level

\begin{align*}
& \leq 65 \\
& 65 < \\
& 70 < \\
& 75 < \\
& 80 < \\
\end{align*}

Source: SoundPlan Version 7.4
For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to an $L_{eq(24)}$ of 70 dBA. The “(24)” signifies an $L_{eq}$ duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication from a distance of approximately 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

**Federal Transit Administration (FTA)**

The proposed project is not subject to the regulation requirements of the FTA; however, the FTA’s vibration impact criteria are accepted industrywide as the best vibration impact guidelines when a local governing agency does not have vibration standards of its own.

The FTA’s vibration impact criteria and impact assessment guidelines are published in its Transit Noise and Vibration Impact Assessment document. The FTA guidelines include thresholds for construction vibration impacts for various structural categories as shown in Table 3.12-6.

<table>
<thead>
<tr>
<th>Structure and Condition</th>
<th>Maximum Peak Particle Velocity (inches/second)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforced-concrete, steel or timber structures (e.g., industrial buildings)</td>
<td>0.5</td>
</tr>
<tr>
<td>Engineered concrete and masonry</td>
<td>0.3</td>
</tr>
<tr>
<td>Non-engineered timber and masonry buildings (e.g., residential)</td>
<td>0.2</td>
</tr>
<tr>
<td>Buildings extremely susceptible to vibration damage (e.g., historic or very old buildings)</td>
<td>0.12</td>
</tr>
</tbody>
</table>


**State**

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the “State Noise Insulation Standard,” it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. The State also includes noise requirements in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 11 (known as the California Green Building Standards Code). The noise insulation standards require that the wall and roof-ceiling assemblies of new non-residential developments that are exposed to exterior noise in excess of 65 dBA CNEL shall meet a composite Standard Transmission Class (STC) rating of at least 50, with exterior windows of a minimum STC rating of 40. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to
meet this standard, where such development is proposed in an area with exterior noise levels greater than 65 dBA CNEL.

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise and land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. The City of Orange has adopted and modified the State’s land use compatibility guidelines, as discussed in the local regulatory section below.

Local

City of Orange

General Plan

The City of Orange General Plan sets forth the following goals and policies that are relevant to noise. Orange has developed its own land use compatibility standards that rate compatibility in terms of only normally acceptable. Using these land use compatibility guidelines, the City has established interior and exterior noise standards. Higher exterior noise levels are permitted for multiple-family housing and housing in mixed-use contexts than for single-family houses. This is because multiple-family complexes are generally located in transitional areas between single family and commercial districts or in proximity to major arterials served by transit, and a more integrated mix of residential and commercial activity (accompanied by higher noise levels) is often desired in mixed-use areas close to transit routes. The following are the goals, policies, and land use compatibility standards relevant to the project:

- **Goal 1.0:** Promote a pattern of land uses compatible with current and future noise levels.
- **Policy 1.1:** Consider potential excessive noise levels when making land use planning decisions.
- **Policy 1.2:** Encourage new development projects to provide sufficient spatial buffers to separate excessive noise generating land uses and noise-sensitive land uses.
- **Policy 1.4:** Ensure that acceptable noise levels are maintained near noise-sensitive uses.
- **Policy 1.6:** Require an acoustical study for proposed developments in areas where the existing and projected noise level exceeds or would exceed the maximum allowable levels identified in Table 3.12-7 (Table N-3 of the General Plan). The acoustical study shall be performed in accordance with the requirements set forth within this Noise Element.
- **Goal 2.0:** Minimize vehicular traffic noise in residential areas and near noise-sensitive land uses.
- **Policy 2.2:** Encourage coordinated site planning and traffic control measures that minimize traffic noise in noise-sensitive land use areas.
- **Goal 7.0:** Minimize construction, maintenance vehicle, and nuisance noise in residential areas and near noise-sensitive land uses.
- **Policy 7.1:** Schedule City maintenance and construction projects so that they generate noise during less sensitive hours.
- **Policy 7.2:** Require developers and contractors to employ noise minimizing techniques during construction and maintenance operations.
- **Policy 7.3**: Limit the hours of construction and maintenance operations located adjacent to noise-sensitive land uses.
- **Policy 7.4**: Encourage limitations on the hours of operations and deliveries for commercial, mixed-use, and industrial uses abutting residential zones.

### Table 3.12-7: Maximum Allowable Noise Exposure—Transportation Sources

<table>
<thead>
<tr>
<th>Designations (as shown on Figure LU-5)</th>
<th>Land Use</th>
<th>CNEL (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Interior(^1,3)</td>
</tr>
<tr>
<td>Estate Low Density Residential</td>
<td>Single-family, duplex, and multiple-family</td>
<td>45</td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>Mobile home park</td>
<td>N/A</td>
</tr>
<tr>
<td>Low Medium Density Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium Density Residential</td>
<td>Single-family</td>
<td>45</td>
</tr>
<tr>
<td>Mixed-use</td>
<td>Mobile home park</td>
<td>N/A</td>
</tr>
<tr>
<td>Neighborhood Office</td>
<td>Multiple-family, mixed-use</td>
<td>45</td>
</tr>
<tr>
<td>Professional</td>
<td>Transient lodging—motels, hotels</td>
<td>45</td>
</tr>
<tr>
<td>Old Towne Mixed-use</td>
<td>Sports arenas, outdoor spectator sports</td>
<td>N/A</td>
</tr>
<tr>
<td>General Commercial</td>
<td>Auditoriums, concert halls, amphitheatres</td>
<td>5</td>
</tr>
<tr>
<td>Yorba Commercial Overlay</td>
<td>Office buildings, business, commercial and</td>
<td>50</td>
</tr>
<tr>
<td>Urban Mixed-use</td>
<td>professional</td>
<td></td>
</tr>
<tr>
<td>Urban Office Professional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Industrial</td>
<td>Manufacturing, utilities, agriculture</td>
<td>N/A</td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>Schools, nursing homes, day care facilities,</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>hospitals, convalescent facilities, dormitories</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Government Facilities—offices, fire stations,</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>community buildings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Places of Worship, Churches</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Libraries</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Utilities</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Cemeteries</td>
<td>N/A</td>
</tr>
<tr>
<td>Recreation Commercial</td>
<td>Playgrounds, neighborhood parks</td>
<td>N/A</td>
</tr>
<tr>
<td>Open Space</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Space—Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Space—Ridgeline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Area</td>
<td>Golf courses, riding stables, water recreation,</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>cemeteries</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.12-7 (cont.): Maximum Allowable Noise Exposure—Transportation Sources

<table>
<thead>
<tr>
<th>Designations (as shown on Figure LU-5)</th>
<th>Land Use</th>
<th>CNEL (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uses</td>
<td>Interior(^1)(^3)</td>
</tr>
</tbody>
</table>

Notes:
1. Interior habitable environment excludes bathrooms, closets and corridors.
2. Exterior noise level standard to be applied at outdoor activity areas; such as private yards, private patio or balcony of a multi-family residence. Where the location of an outdoor activity area is unknown or not applicable, the noise standard shall be applied inside the property line of the receiving land use.
3. Interior noise standards shall be satisfied with windows in the closed position. Mechanical ventilation shall be provided per Uniform Building Code (UBC) requirements.
4. Within the Urban Mixed-Use, Neighborhood Mixed-Use, Old Towne Mixed-use, and Medium Density Residential land use designations, exterior space standards apply only to common outdoor recreational areas.
5. Within Urban Mixed-Use and Medium Density Residential land use designations, exterior noise levels on private patios or balconies located within 250 feet of freeways (I-5, SR-57, SR-55, SR-22, or SR-241) and Smart Streets and Principal Arterials identified in the Circulation & Mobility Element that exceed 70 dB should provide additional common open space.

N/A=Not Applicable to specified land use category or designation

Source: Table N-3 of the City of Orange General Plan Noise Element.

When non-transportation (stationary) noise is the primary noise source, the City applies a second set of standards when planning and making development decisions. These hourly and maximum performance standards (expressed in L\(_{eq}\) and L\(_{max}\), respectively) for non-transportation or stationary noise sources are designed to protect noise sensitive land uses adjacent to stationary sources from excessive noise. Table 3.12-8 (Table N-4 of the General Plan) summarizes City stationary source noise standards for various land use types. These standards represent the acceptable exterior noise levels at the sensitive receptor.

Table 3.12-8: Maximum Allowable Noise Exposure—Stationary Noise Sources

<table>
<thead>
<tr>
<th>Noise Level Descriptor</th>
<th>Daytime (7 a.m. to 10 p.m.)</th>
<th>Nighttime (10 p.m. to 7 a.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly Equivalent Level (L(_{eq})), dBA</td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>Maximum Level (L(_{max})), dBA</td>
<td>70</td>
<td>65</td>
</tr>
</tbody>
</table>

Notes:
1. These standards apply to new or existing noise sensitive land uses affected by new or existing non-transportation noise sources, as determined at the outdoor activity area of the receiving land use. However, these noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).
2. Each of the noise levels specified above should be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).
3. No standards have been included for interior noise levels. Standard construction practices that comply with the exterior noise levels identified in this table generally result in acceptable interior noise levels.
4. The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels. If the existing ambient noise level exceeds the standards listed in Table N-4, then the noise level standards shall be increased at 3 dB increments to encompass the ambient environment. Noise level standards incorporating adjustments for existing ambient noise levels shall not exceed a maximum of 70 dB L\(_{eq}\).

Source: Table N-4 of the City of Orange General Plan Noise Element.
In addition to the maximum allowable noise level standards outlined in Tables 3.12-7 and 3.12-8, an increase in ambient noise levels is assumed to be a significant noise impact if a project causes ambient noise levels to exceed the following:

- Where the existing ambient noise level is less than 65 dBA, a project related permanent increase in ambient noise levels of 5 dBA CNEL or greater.
- Where the existing ambient noise level is greater than 65 dBA, a project related permanent increase in ambient noise levels of 3 dBA CNEL or greater.

**City of Orange Municipal Code**

The City’s Municipal Code Title 8, Health and Safety, Chapter of 8.24, Noise Control, states:

**Section 8.24.050 Exterior Noise Standards**

A. The following noise standards (Table 3.12-9, *City of Orange Municipal Code Exterior Noise Standards*), unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

**Table 3.12-9: City of Orange Municipal Code Exterior Noise Standards**

<table>
<thead>
<tr>
<th>Noise Zone</th>
<th>Noise Level</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55 dB (A)</td>
<td>7:00 a.m.–10:00 p.m.</td>
</tr>
<tr>
<td>1</td>
<td>50 dB (A)</td>
<td>10:00 p.m.–7:00 a.m.</td>
</tr>
</tbody>
</table>


B. It is unlawful for any person at any location within the City to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other residential property to exceed:

1. The noise standard for a cumulative period of more than thirty minutes in any hour; or
2. The noise standard plus five dB(A) for a cumulative period of more than fifteen minutes in any hour; or
3. The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour; or
4. The noise standard plus fifteen dB(A) for a cumulative period of more than one minute in any hour; or,
5. The noise standard plus twenty dB(A) for any period of time.

C. In the event the ambient noise level exceeds any of the five noise limit categories, designated in Subsection B of this section, the cumulative period applicable to said category shall be increased to reflect the ambient noise level. Furthermore, the maximum permissible noise level shall never exceed the maximum ambient noise level.

D. Each of the noise limits specified in Subsection B shall be reduced by five dB(A) for impact or simple tone noises, or for noises consisting of speech or music.
Section 8.24.060 Interior Noise Standards

A. The following noise standards (Table 3.12-10, City of Orange Municipal Code Interior Noise Standards), unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

<table>
<thead>
<tr>
<th>Noise Zone</th>
<th>Noise Level</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55 dB (A)</td>
<td>7:00 a.m.–10:00 p.m.</td>
</tr>
<tr>
<td>1</td>
<td>45 dB (A)</td>
<td>10:00 p.m.–7:00 a.m.</td>
</tr>
</tbody>
</table>


B. It is unlawful for any person at any location within the City to create any noise or to allow the creation of any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level when measured within a dwelling unit on any residential property to exceed:
1. The noise standard for a cumulative period of more than five minutes in any hour; or
2. The noise standard plus five dB(A) for a cumulative period of more than one minute in any hour; or,
3. The noise standard plus ten dB(A) for any period of time.

C. In the event the ambient noise level exceeds any of the above three noise limit categories designated in Subsection B of this section, the cumulative period applicable to the category shall be increased to reflect the ambient noise level. Furthermore, the maximum permissible noise level shall never exceed the maximum ambient noise level.

D. Each of the noise limits specified above shall be reduced by five dB(A) for impact or simple tone noises, or for noises consisting of speech or music.

Section 8.24.070 Exemptions from Chapter Provisions states the following activities shall be exempted from the provisions of this chapter:

a) School bands, school athletic and school entertainment events;
b) Outdoor gatherings, public dances, shows and sporting and entertainment events provided such events are conducted pursuant to any permit requirements established by the City;
c) Activities conducted on public parks, public playgrounds, and public or private school grounds;
d) Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle or work;
e) Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 P.M. and 7:00 A.M. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday;
f) All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions;

g) Mobile noise sources associated with agricultural operations provided such operations do not take place between the hours of 8:00 P.M. and 7:00 A.M. on weekdays including Saturday, or at any time on Sunday or a Federal holiday;

h) Mobile noise sources associated with agricultural pest control through pesticide application, provided that the application is made in accordance with restricted material permits issued by or regulations enforced by the Agricultural Commissioner;

i) Noise sources associated with the maintenance of real property, provided such activities take place between the hours of 7:00 A.M. and 8:00 P.M. on any day except Sunday or a Federal holiday, or between the hours of 9:00 A.M. and 8:00 P.M. on Sunday or a Federal holiday;

j) Any activity to the extent regulation thereof has been preempted by State or Federal Law.

3.12.4 - Methodology

Traffic Noise Modeling Methodology

SoundPlan
Since the project vicinity is impacted by multiple roadways, the SoundPlan Version 7.4 noise modeling software was used. SoundPlan’s road noise algorithms are based on the FHWA Traffic Noise Model (FHWA TNM Model). The SoundPlan Model requires the input of roadways and the locations of modeled receivers. In addition, sound barriers, terrain contour lines, building placement, and specific ground coverage zones may be incorporated as well. The grading plan with elevation lines and aerial photos were used to determine the placement of the roadways and to establish the terrain in the project vicinity. The ground coverage of forest 25 feet high was used in the area immediately adjacent to Santiago Creek and loose soil was used throughout the remainder of the study area and the default temperature of 20 degrees Celsius (68 degrees Fahrenheit) and default humidity of 50 percent were used in the analysis. The modeling input assumptions and output data are provided in Appendix N.

Roadway Assumptions
The model analyzed the noise impacts from the nearby roadways onto the project vicinity. All analyzed roadways were based on a single lane equivalent noise source combining both directions of travel. The study area roadway parameters have been based on the roadway classification provided in the City’s General Plan Circulation Element. The resultant traffic volumes and roadway parameters used for this study are presented in Table 3.12-11.
### Table 3.12-11: SoundPlan Model Roadway Parameters

<table>
<thead>
<tr>
<th>Roadway—Segment Description</th>
<th>General Plan Classification</th>
<th>Vehicle Speed (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannon Street—North of Taft Avenue</td>
<td>Major Arterial</td>
<td>45</td>
</tr>
<tr>
<td>Cannon Street—North of Santiago Canyon Road</td>
<td>Major Arterial</td>
<td>45</td>
</tr>
<tr>
<td>Cannon Street—South of Santiago Canyon Road</td>
<td>Secondary Arterial</td>
<td>35</td>
</tr>
<tr>
<td>Orange Park Boulevard—South of Santiago Canyon Road</td>
<td>Collector</td>
<td>40</td>
</tr>
<tr>
<td>Serrano Avenue—East of Cannon Street</td>
<td>Secondary</td>
<td>40</td>
</tr>
<tr>
<td>Santiago Canyon Road—West of Cannon Street</td>
<td>Augmented Primary</td>
<td>45</td>
</tr>
<tr>
<td>Santiago Canyon Road—East of Cannon Street</td>
<td>Augmented Primary</td>
<td>50</td>
</tr>
<tr>
<td>Santiago Canyon Road—East of Orange Park Boulevard</td>
<td>Augmented Primary</td>
<td>50</td>
</tr>
<tr>
<td>Mt McKinley Boulevard/Mabury Avenue—East of Serrano Avenue</td>
<td>Local</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: FirstCarbon Solutions, 2017.

In order to determine the off-site project generated traffic noise impacts, the average daily traffic volumes on the study area local roadways were obtained from the traffic analysis prepared for this project by Linscott Law & Greenspan (December, 2017). Most of the average daily traffic (ADT) volumes were taken directly from the Traffic Analysis; however, the Traffic Analysis only provided AM and PM peak hour volumes for the roadway segment of Serrano Avenue east of Cannon Street and the ADT volume for this roadway segment was calculated by multiplying the PM peak hour volumes by 10, which was the closest PM Peak to ADT multiplier available to all of the roadway segments analyzed where both the PM Peak and ADT volumes were provided. Since the Traffic Study did not provide the traffic volumes for Mount McKinley Boulevard/Mabury Avenue, the traffic volume of 1,000 ADT was estimated from field observations during the noise measurements. The model requires the separate input of autos, medium trucks, and heavy trucks. The vehicle mix was based on the vehicle mix used in the City of Orange General Plan Program Environment Impact Report for the city’s roadways.

The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. Adjustments are then made to account for the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT); and the percentage of ADT that flows during the day, evening, and night; the travel speed; the vehicle mix on the roadway; and the site conditions (“hard” or “soft”) as they relate to the absorption of the ground, pavement, or landscaping.

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not propose any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway so the proposed project’s potential off-site noise impacts have
been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.

**Stationary Operational Noise Impacts**

The proposed project could include new stationary noise sources, such as typical parking lot activities, and new mechanical ventilation equipment. These activities are potential point sources of noise that could affect noise-sensitive receptors in the project vicinity. At the time of preparation of this analysis, details were not available pertaining to mechanical ventilation systems; therefore, a reference noise level for typical rooftop mechanical ventilation systems was used.

**Permanent Increase in Ambient Noise Levels**

The project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered to be the minimum change considered readily perceptible to the human ear in outdoor environments. In order for proposed project’s operations to be considered significant, the proposed project would need to increase the noise levels on a residential or school land use above 65 dBA CNEL where the without project noise level is below 65 dBA CNEL, or by (1) 5 dBA CNEL where the without project noise level is less than 65 dBA CNEL, or (2) 3 dBA CNEL where the without project noise level is greater than 65 dBA CNEL. A significant impact would also occur if the proposed project provides any increase to a residential or school use receptor location which already exceeds 75 dBA CNEL.

**3.12.5 - Thresholds of Significance**

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, noise impacts resulting from the implementation of the proposed project would be considered significant if the project would cause:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?
3.12.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate. The 128 residential parcels would occupy the 40.7 acres in the southern and western portion of the site between Santiago Creek and E. Santiago Canyon Road. Open space and recreational uses would occupy the balance of the project site. Santiago Creek and the area north of the creek would be permanently preserved as greenway. The area located south of the creek and west of the residential uses would be occupied by a community activity center that includes uses such as, but not limited to, gardens, 4-H, farmers market, and flex activities.

Noise in Excess of Adopted Standards

Impact NOI-1: The proposed project will result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Analysis

Construction Noise Impacts

Implementation of the proposed project will be primarily dictated by economic conditions and may occur on a phased basis over a period of years. However, for the purposes of providing a conservative, reasonable worst-case analysis in this EIR, it will be assumed that the entire project would be developed in a single phase that takes 12 months to complete.

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the project site. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance, the effect on longer-term (hourly or daily) ambient noise levels would be small. Therefore, short-term construction-related impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings. Impact equipment such as pile drivers is not expected to be used during construction of this project.

The highest construction-related noise levels would be generated during ground clearing, excavation, and grading, as these phases require the use of the heaviest, and loudest, pieces of construction equipment. Large pieces of earth-moving equipment, such as graders, excavators, and bulldozers,
generate maximum noise levels of 80 dBA to 85 dBA L_{max} at a distance of 50 feet. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. As construction moves away from noise-sensitive receptors, noise levels generated by heavy construction will be lower. A characteristic of noise is that each doubling of the sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from an active construction area.

The residential uses to the east are the closest off-site sensitive receptors to where construction equipment would be operating during the site preparation for the proposed residential unit development. These homes would be located as near as 100 feet from the center of the nearest construction footprint where multiple pieces of heavy equipment could be operating simultaneously. At this distance, these loudest construction activities could be expected to result in noise levels ranging up to approximately 84 dBA L_{max} intermittently when multiple pieces of heavy construction equipment operate simultaneously at the nearest center of construction activity.

Although there would be single-event noise exposure potential to cause intermittent noise nuisance from project construction activity, the effect on longer-term (hourly or daily) ambient noise levels would be small, but could result in annoyance or even sleep disturbance of nearby sensitive receptors if operating outside daytime hours. The noise ordinance of the Municipal Code limits noise producing construction activity to between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday; these activities are not permitted on Sundays or federal holidays. Thus, compliance with the City’s permissible hours of construction, as well as compliance with best management practices, construction noise reduction measures outlined in Mitigation Measure (MM) NOI-1a, would ensure that construction noise would not result in sleep disturbance of sensitive receptors or exposure of persons to noise levels in excess of established standards. With the incorporation of mitigation, short-term construction impacts associated with applicable noise standards established by the City of Orange will be less than significant.

**Traffic Noise Impacts**

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not propose any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway so the proposed project’s potential off-site noise impacts have been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.

The potential off-site noise impacts caused through the increase in vehicular traffic from the ongoing operations from the proposed project on to the project study area roadways have been analyzed for the following five traffic scenarios:
• **Existing With Project:** This scenario refers to the existing traffic noise conditions, plus the net traffic generated from the on-going operations of the proposed project without the traffic generated from the materials recycling and backfilling operations.

• **Year 2022 Baseline:** This scenario refers to the future traffic noise conditions based on the existing conditions that includes daily trips generated from the existing materials recycling and backfilling operations on the project site plus an area growth rate of 2.8 percent per year and traffic from cumulative projects, without construction of the proposed project.

• **Year 2022 With Project:** This scenario refers to the future traffic noise conditions based on the Year 2022 Baseline conditions plus the net traffic, which consists of the traffic generated from the on-going operations of the proposed project minus the traffic generated from the existing materials recycling and backfilling operations.

• **Year 2040 Baseline:** This scenario refers to the future traffic noise conditions provided in the OTAM traffic model, which is based on the year 2040 Existing General Plan traffic projections for the project site that includes 126 single-family homes on the project site, without construction of the proposed project.

• **Year 2040 With Project:** This scenario refers to the future traffic noise conditions based on the Year 2040 Baseline conditions, plus the net traffic, which consists of the traffic generated from the on-going operations of the proposed project minus the traffic generated from the 126 single-family homes in Planning Area A.

To quantify the traffic noise impacts along the analyzed roadways, the roadway noise contours were calculated for Existing (Exhibit 3.12-1), Existing with Project (Exhibit 3.12-2), year 2022 baseline (Exhibit 3.12-3), year 2022 with project (Exhibit 3.12-4), year 2040 baseline (Exhibit 3.12-5), and year 2040 with project (Exhibit 3.12-6) project noise contour maps.

In order for off-site roadway noise impacts created by the proposed project’s operations to be considered significant, the proposed project would need to increase the noise levels on a residential or school land use above 65 dBA CNEL where the without project noise level is below 65 dBA CNEL or by (1) 5 dBA CNEL, where the without project noise level is less than 65 dBA CNEL or (2) 3 dBA CNEL, where the without project noise level is greater than 65 dBA CNEL. A significant impact would also occur if the proposed project provides any increase to a residential or school use that already exceeds 75 dBA CNEL. The proposed project’s on-site and off-site noise impacts have been analyzed for the existing, year 2022, and year 2040 conditions, which are discussed below.
Exhibit 3.12-2
Existing with Project Noise Contour Map (dBA CNEL)

Source: SoundPlan Version 7.4
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Exhibit 3.12-6

Year 2040 with Project Contour Map (dBA CNEL)

Source: SoundPlan Version 7.4

City of Orange • Trails at Santiago Creek Specific Plan
Recirculated Draft Environmental Impact Report
**Existing Conditions**

The proposed project’s potential off-site noise impacts have been calculated through a comparison of the existing scenario to the existing with project scenario. The results of this comparison are shown in Table 3.12-12. The SoundPlan Model printouts are provided in Appendix N.

### Table 3.12-12: Roadway Noise Impacts to Nearby Sensitive Receptors—Existing Conditions

<table>
<thead>
<tr>
<th>Receiver</th>
<th>No Project</th>
<th>Existing (dBA CNEL)²</th>
<th>Increase</th>
<th>Increase Threshold³</th>
<th>Exceed City Standard?</th>
</tr>
</thead>
<tbody>
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<td>+5 dBA</td>
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</tr>
<tr>
<td>3</td>
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<td>57.1</td>
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<td>+5 dBA</td>
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</tr>
<tr>
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</tr>
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<td>0.1</td>
<td>+5 dBA</td>
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</tr>
</tbody>
</table>

Notes:
- All noise levels that exceed the City’s 65 dBA CNEL residential standard shown in **Bold**
- Receiver locations shown in Exhibits 3.12-1 and 3.12-2.
- Noise level includes a 4.77 dBA penalty to account for the noise sensitive evening hours and a 10 dBA penalty to account for the noise sensitive nighttime hours.
- Increase threshold obtained from City of Orange General Plan, 2010.

Table 3.12-12 above shows that for the existing conditions, noise level contributions from the proposed project to the representative nearby sensitive receptors would range from 0.0 to 0.1 dBA CNEL, which is below the 5 dBA increase threshold for roadways below 65 dBA CNEL and below the 3 dBA increase threshold for roadways that exceed 65 dBA CNEL. In this scenario, no analyzed sensitive receptors would exceed the City’s residential or school noise standard of 65 dBA CNEL when compared to existing without project conditions. In addition, no sensitive receptors would exceed the 75 dBA CNEL maximum noise exposure level. Therefore, for the existing conditions, no significant long-term off-site noise impacts from project-related vehicle noise would occur at the nearby homes and schools.
Year 2022 Conditions
The proposed project’s potential off-site noise impacts have been calculated through a comparison of the year 2022 baseline scenario to the year 2022 with project scenario. The results of this comparison are shown in Table 3.12-13. The SoundPlan Model printouts are provided in Appendix N for the year 2022 baseline conditions and year 2022 with project conditions.

Table 3.12-13: Roadway Noise Impacts to Nearby Sensitive Receptors—Year 2022 Conditions

<table>
<thead>
<tr>
<th>Receiver</th>
<th>Year 2022 (dBA CNEL)</th>
<th>Increase</th>
<th>Increase Threshold</th>
<th>Exceed City Standard?</th>
</tr>
</thead>
<tbody>
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<td>+5 dBA</td>
<td>No</td>
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<td>0.0</td>
<td>+5 dBA</td>
<td>No</td>
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<td>53.4</td>
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<td>+5 dBA</td>
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<tr>
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</tr>
</tbody>
</table>

Notes:
All noise levels that exceed the City’s 65 dBA CNEL residential standard shown in **Bold**

1 Receiver locations shown in Exhibits 3.12-3 and 3.12-4.
2 Increase threshold obtained from City of Orange General Plan, 2010.

Table 3.12-13 above shows that for the year 2022 conditions, noise level contributions from the proposed project to the representative nearby sensitive receptors would range from 0.0 to 0.1 dBA CNEL, which is below the 5 dBA increase threshold for roadways below 65 dBA CNEL and below the 3 dBA increase threshold for roadways that exceed 65 dBA CNEL. In this scenario, no analyzed sensitive receptors would exceed the City’s residential or school noise standard of 65 dBA CNEL when compared to existing without project conditions. In addition, no sensitive receptors would exceed the 75 dBA CNEL maximum noise exposure level. Therefore, for the year 2022 conditions, no significant long-term off-site noise impacts from project-related vehicle noise would occur at the nearby homes and schools.
Year 2040 Conditions

The proposed project’s potential off-site noise impacts have been calculated through a comparison of the year 2040 baseline scenario to the year 2040 with project scenario. The results of this comparison are shown in Table 3.12-14. The SoundPlan Model printouts are provided in Appendix N for the year 2040 baseline conditions and year 2040 baseline with project conditions.

Table 3.12-14: Roadway Noise Impacts to Nearby Sensitive Receptors—Year 2040 Conditions

<table>
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<tr>
<th>Receiver</th>
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<th>Increase Threshold</th>
<th>Exceed City Standard?</th>
</tr>
</thead>
<tbody>
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<td>No Project</td>
<td>With Project</td>
<td></td>
<td></td>
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<tr>
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<td>+3 dBA</td>
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</table>

Notes:
All noise levels that exceed the City’s 65 dBA CNEL residential standard shown in **Bold**
1. Receiver locations shown in Exhibit 5 and 6.
2. Increase threshold obtained from City of Orange General Plan, 2010.

Table 3.12-14 above shows that for the year 2040 conditions, noise level contributions from the proposed project to the representative nearby sensitive receptors would range from 0.0 to 0.1 dBA CNEL, which is below the 5 dBA increase threshold for roadways below 65 dBA CNEL and below the 3 dBA increase threshold for roadways that exceed 65 dBA CNEL. In this scenario, no analyzed sensitive receptors would exceed the City’s residential or school noise standard of 65 dBA CNEL when compared to existing without project conditions. In addition, no sensitive receptors would exceed the 75 dBA CNEL maximum noise exposure level. Therefore, for the year 2040 conditions, no significant long-term off-site noise impacts from project-related vehicle noise would occur at the nearby homes, churches and schools.
Potential On-site Exterior Traffic Noise Impacts

The proposed residential, community center and open space uses may be exposed to noise levels in excess of City standards. According to the City’s General Plan, noise levels at new residential uses shall be limited to 65 dBA CNEL for exterior living areas and 45 dBA CNEL for interior living areas. In addition, exterior noise levels at neighborhood centers and parks shall be limited to 70 dBA CNEL.

To evaluate the noise exposure levels that would impact the proposed residential and community uses along East Santiago Canyon Road, the year 2040 with project scenario was utilized for calculating the exterior noise impacts at those proposed uses. As shown in Exhibit 3.12-6, the 65 dBA and 70 dBA CNEL traffic noise level contour extend 352 feet and 163 feet onto the project site, respectively. A detailed site plan has yet to be drafted, however, for this analysis it is assumed that residential structures within 352 feet of the centerline of East Santiago Canyon Road would be exposed to traffic noise levels in excess of the City’s “normally compatible” standard of 65 dBA CNEL for new single-family residential land use development. Therefore, mitigation must be incorporated into the Project to reduce on-site traffic noise impacts.

It should be noted that existing noise sensitive residential uses located along East Santiago Canyon Road to the east and south of the project site are immediately adjacent the four-lane roadway. These noise sensitive receptors are shielded from East Santiago Canyon Road traffic noise by a 6-foot noise barrier. This 6-foot noise barrier was accounted for in SoundPlan modeling and Exhibit 3.12-6 shows that noise levels at these existing noise sensitive residences are below 65 dBA CNEL within backyard areas.

Potential On-site Interior Traffic Noise Impacts

According to the City’s land use compatibility standards, when new residential development is proposed in areas with a noise environment ranging from 65 dBA to 70 dBA CNEL, a detailed noise impact analysis must be performed and needed noise insulation features must be included in the design to ensure that the interior noise standard of 45 dBA CNEL is maintained. This requirement is also consistent with General Plan Policy 1.6.

Based on the EPA’s Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors and windows, standard construction for northern California residential buildings would provide approximately 25 dBA in exterior to interior noise reduction with windows closed, and approximately 15 dBA with windows open. These exterior to interior noise reduction rates are also consistent with the exterior to interior noise reduction rates provided in Table N-5 from the General Plan (City of Orange, 2010).

Beyond approximately 560 feet from the centerline of East Santiago Canyon Road, exterior traffic noise levels would attenuate to below 60 dBA CNEL, and therefore, interior noise levels would attenuate to the interior residential living space noise level standard of 45 dBA CNEL (65 dBA-15 dBA = 45 dBA). In other words, beyond 560 feet from the center line of East Santiago Canyon Road, standard residential construction methods would provide sufficient reduction to meet the interior residential living space noise level standard of 45 dBA CNEL.
However, with windows open, interior living spaces for the proposed residential land uses located within approximately 560 feet of the center line of East Santiago Canyon Road would not meet the interior noise standard of 45 dBA CNEL (60+ dBA–15 dBA = 45+ dBA). With windows closed, the interior noise standard would be met for the area between 164 and 560 feet from the centerline of East Santiago Canyon Road (60 to 70 dBA–25 dBA = 35 to 45 dBA). In such cases, it is standard procedure to require that an alternative ventilation system, such as air conditioning, be provided to ensure that windows can remain closed for a prolonged period of time in order to meet interior noise standards. Although detailed design plans are not available at this time, it is assumed for this climate that all proposed residences would include, as a project design feature, a heating/air conditioning ventilation system (HVAC) that would allow for a windows closed condition. For any homes located closer than 164 feet from the centerline of East Santiago Canyon Road, additional mitigation is required to meet the interior noise standard, which could be achieved through the use of upgraded windows and doors.

**Off-site Stationary Noise Impacts**

On the southwestern area of the project site, 128 single-family residences are proposed for construction within the Residential Development Area. This residential portion of the Project would include new stationary noise sources such as new mechanical ventilation system equipment on the outside of the proposed residential units. In order for operational stationary noise impacts created by the proposed project to be considered significant, the project-related operational noise level would have to exceed 55 dBA $L_{eq}$ and 70 dBA $L_{max}$ between 7:00 a.m. and 10:00 p.m. or exceed 50 dBA $L_{eq}$ and 65 dBA $L_{max}$ between 10:00 p.m. and 7:00 p.m. at the exterior façade of nearby sensitive receptors. Typical new residential mechanical ventilation systems (such as exterior air conditioning units) generate noise levels from approximately 50 dBA to 65 dBA $L_{eq}$ at 10 feet (Noise Navigator™ Sound Level Database 2015). The residential uses to the east are the closest off-site sensitive receptors, and are located approximately 65 feet from the Project’s nearest property line. At this distance, these noise levels would attenuate to 49 dBA $L_{eq}$. Therefore, noise levels from mechanical ventilation systems operations would not exceed the City’s standard of 55 dBA $L_{eq}$ and 70 dBA $L_{max}$ between 7:00 a.m. and 10:00 p.m. or exceed 50 dBA $L_{eq}$ and 65 dBA $L_{max}$ between 10:00 p.m. and 7:00 p.m. at the exterior façade of nearby sensitive receptors.

The area located south of the creek and west of the proposed residential uses would be occupied by recreational uses. These land uses/improvements could result in new stationary noise sources primarily associated with the activities at the parking lot and related to community activities. Parking lot activities, such as people conversing or doors slamming, typically generate noise levels of approximately 60 dBA to 70 dBA $L_{max}$ at 50 feet and would most likely be located along East Santiago Canyon Road. The nearest off-site sensitive receptors to a potential parking lot would be the residential land uses located approximately 125 feet to south across the four lane East Santiago Canyon Road. Noise levels from these parking lot activities at this distance could range up to approximately 62 dBA $L_{max}$. Therefore, when averaged over a 24-hour period, noise levels from community center activities would not exceed the City’s standard of 55 dBA $L_{eq}$ and 70 dBA $L_{max}$ between 7:00 a.m. and 10:00 p.m. or exceed 50 dBA $L_{eq}$ and 65 dBA $L_{max}$ between 10:00 p.m. and 7:00 p.m. at the exterior façade of nearby sensitive receptors.
Potentially significant impacts could occur if parking lot activities exceeded existing maximum noise levels in the Project vicinity. However, maximum noise levels along East Santiago Canyon Road and in the Project vicinity exceed 70 dBA $L_{\text{max}}$ and there is an existing noise barrier located along noise sensitive residential property lines south of East Santiago Canyon Road. In addition, although there could be occasional single-event noise exposure of over 70 dBA $L_{\text{max}}$ from parking lot activities as measured at 50 feet, these single-event maximum noise levels are not expected to occur for more than a cumulative 1 minute within any hour. Therefore, when averaged over a 24-hour period, noise levels from parking lot activities would not exceed the City’s standard of 55 dBA $L_{\text{eq}}$ and 70 dBA $L_{\text{max}}$ between 7:00 a.m. and 10:00 p.m. or exceed 50 dBA $L_{\text{eq}}$ and 65 dBA $L_{\text{max}}$ between 10:00 p.m. and 7:00 p.m. at the exterior façade of nearby sensitive receptors. As a result, Project-related parking lot activities would not result in exposure of persons to noise levels in excess of existing noise levels nor result in noise levels that would exceed established standards.

Noise sources associated with recreational activities would primarily be comprised of human speech. There could be periods of intensive activity prior to a farmers market with setup and tear down activities. Activities associated with recreational uses would not require the use of heavy noise producing equipment. The nearest noise-sensitive residential uses to the proposed recreational uses are those located to the north over 300 feet away. The residential uses to the south benefit from an existing noise barrier and recreational activities would be dominated by East Santiago Canyon Road traffic noise. Therefore, when averaged over a 24-hour period, noise levels from community center activities would not exceed the City’s standard of 55 dBA $L_{\text{eq}}$ and 70 dBA $L_{\text{max}}$ between 7:00 a.m. and 10:00 p.m. or exceed 50 dBA $L_{\text{eq}}$ and 65 dBA $L_{\text{max}}$ between 10:00 p.m. and 7:00 p.m. at the exterior façade of nearby sensitive receptors. As a result, project-related parking lot activities would not result in exposure of persons to noise levels in excess of existing noise levels nor result in noise levels that would exceed established standards.

In summary, on-site stationary operational noise levels would not exceed existing ambient noise levels in the Project vicinity nor be expected to exceed the City’s maximum allowable noise exposure standards for receiving land uses. Related impacts would be less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact.

**Mitigation Measures**

**MM NOI-1a** To reduce potential construction noise impacts, the following multi-part mitigation measure shall be implemented for the proposed project:

- The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.
- The construction contractor shall locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
• The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
• The construction contractor shall utilize “quiet” models of air compressors and other stationary noise sources where technology exists.
• The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
• The construction contractor shall ensure that the construction staging areas shall be located to create the greatest feasible distance between the staging area and noise-sensitive receptors nearest the project site.
• The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establishment reasonable measures necessary to correct the problem. The construction contractor shall visibly post a telephone number for the disturbance coordinator at the construction site.
• All on-site construction activities, including deliveries and engine warm-up, shall be restricted to the hours between 7:00 a.m. and 8:00 p.m. Monday through Saturday. Construction, except emergency work, shall not be permitted on Sunday or federal holidays.

**MM NOI-1b** To reduce potential future on-site exterior traffic noise impacts at on-site receptors adjacent to East Santiago Canyon Road, the following multi-part mitigation measure shall be implemented for the proposed project:

• Based on SoundPlan model runs, a 6-foot high noise barrier, relative to the receptor elevation, is required to comply with the City’s exterior noise standard for proposed residential uses located adjacent to Santiago Canyon Road. The calculated noise contours are shown in Exhibit 3.12-7. In order to meet the City’s exterior noise standard for community uses, a 4-foot high berm would be required along Santiago Canyon Road; or
• A minimum setback distance of 164 feet from the centerline of East Santiago Canyon Road shall be incorporated into the design feature. The first row of residential uses constructed 164 feet from the centerline will also have front yards facing East Santiago Canyon Road.

**MM NOI-1c** To reduce potential future on-site interior traffic noise impacts at on-site receptors adjacent to East Santiago Canyon Road, the following multi-part mitigation measure shall be implemented for the proposed project:

• All proposed residential units located within 560 feet of the centerline of East Santiago Canyon Road shall include an alternate form of ventilation, such as an air conditioning system, in order to ensure that windows can remain closed for a
prolonged period of time. The building plans approved by the County shall reflect this requirement.

- All second story habitable rooms of proposed residential units located within 164 feet of the centerline of East Santiago Canyon Road shall include STC 30 rated windows in facades that would be parallel and perpendicular to East Santiago Canyon Road; or,
- Upon completion of the architectural plans, a detailed acoustical study shall be prepared by a qualified noise analyst that analyzes the interior noise levels of the proposed residential units and provides design features to reduce the interior noise levels to within the 45 dBA CNEL standard.

**Level of Significance After Mitigation**

Less than significant impact.

**Vibration**

**Impact NOI-2:** The project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels.

**Impact Analysis**

**Construction-Related Vibration**

Construction activities can produce vibration that may be felt by adjacent uses. The primary sources of vibration during construction would be during grading activities. The closest vibration sensitive land uses are the nearby single-family homes, with the nearest residential structures located approximately 50 east feet from the proposed area to be graded. It is anticipated that the vibration levels caused by a vibratory roller operating on the edge of the area to be graded during construction of the proposed project at the nearest structure will be around 0.098 PPV would be readily perceptible for a person sitting or lying down and may create groundborne noise such as the rattling of loose windows or dishes. However, the vibration impacts would only occur when heavy construction equipment is operating in the immediate vicinity of a sensitive receptor, which would only occur intermittently for a limited duration. In addition, this vibration level is below the 0.2 PPV FTA threshold. Therefore, the short-term construction-related vibration from the proposed project would result in a less than significant short-term vibration impact.

**Operational-Related Vibration Impacts**

Residential units could be located as near as 50 feet from the edge of East Santiago Canyon Road. According to Table 4.12-1, *Vibration Source Levels for Construction Equipment*, a truck typically produces a vibration level of 0.076 inch per second PPV at 25 feet from a roadway. Based on the typical propagation of vibration this would result in reasonable worst-case vibration level of 0.035 inch per second PPV at the nearest proposed residential unit to East Santiago Canyon Road. A vibration level of 0.035 inch per second PPV would be slightly above the level of perception for a person sitting or lying down and may create groundborne noise such as the rattling of loose windows or dishes, if East Santiago Canyon Road is not properly maintained in the future. This vibration level is below the 0.2 PPV FTA threshold. Therefore, a less than significant vibration impact is anticipated from the on-going operations of the proposed project.
Exhibit 3.12-7

Year 2040 with Project Sound Walls/Berms Noise Contour Map (dBA CNEL)

Source: SoundPlan Version 7.4

Scale 1:626

Noise level

- <= 65
- 65 < <= 70
- 70 < <= 75
- 75 < <= 80
- 80 <

CITY OF ORANGE • TRAILS AT SANTIAGO CREEK SPECIFIC PLAN
RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT
Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Permanent Increase in Ambient Noise Levels

| Impact NOI-3: | The proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity. |

Impact Analysis

Potential Off-Site Road Noise Impacts
In order for off-site roadway noise impacts created by the proposed project’s operations to be considered significant, the proposed project would need to increase the noise levels on a residential or school land use above 65 dBA CNEL where the without project noise level is below 65 dBA CNEL, or by (1) 5 dBA CNEL where the without project noise level is less than 65 dBA CNEL, or (2) 3 dBA CNEL where the without project noise level is greater than 65 dBA CNEL. A significant impact would also occur if the proposed project provides any increase to a residential or school use that already exceeds 75 dBA CNEL. The proposed project’s on-site and off-site noise impacts have been analyzed for the existing, year 2022, and 2040 conditions, which are discussed below.

Existing Conditions
The analysis in Impact NOI-1 found that for the existing conditions, noise level contributions from the proposed project to the study area roadways would range from 0.0 to 0.1 dBA CNEL, which is below the 5 dBA increase threshold for roadways below 65 dBA CNEL and below the 3 dBA increase threshold for roadways that exceed 65 dBA CNEL. In this scenario, no additional roadway segments would exceed the City’s residential or school noise standard of 65 dBA CNEL when compared to existing without project conditions. In addition, no roadways would exceed the 75 dBA CNEL maximum noise exposure level. Therefore, for the existing plus project conditions, no significant long-term off-site noise impacts from project-related vehicle noise would occur along the study area roadways segments.

Year 2022 Conditions
The analysis in Impact NOI-1 found that for the year 2022 conditions, noise level contributions from the proposed project to the study area roadways would range from 0.0 to 0.1 dBA CNEL, which is below the 5 dBA increase threshold for roadways below 65 dBA CNEL and below the 3 dBA increase threshold for roadways that exceed 65 dBA CNEL. In this scenario, no additional roadway segments would exceed the City’s residential or school noise standard of 65 dBA CNEL when compared to year 2022 baseline conditions. In addition, no roadways would exceed the 75 dBA CNEL maximum noise exposure level. Therefore, for the year 2022 plus project conditions, no significant long-term off-site noise impacts from project-related vehicle noise would occur along the study area roadways segments.
Year 2040 Conditions
The analysis in Impact NOI-1 found that for the year 2040 conditions, noise level contributions from the proposed project to the study area roadways would range from 0.0 to 0.1 dBA CNEL, which is below the 5 dBA increase threshold for roadways below 65 dBA CNEL and below the 3 dBA increase threshold for roadways that exceed 65 dBA CNEL. In this scenario, no additional roadway segments would exceed the City’s residential or school noise standard of 65 dBA CNEL when compared to year 2040 baseline conditions. In addition, no roadways would exceed the 75 dBA CNEL maximum noise exposure level. Therefore, for the year 2040 project conditions, no significant long-term off-site noise impacts from project-related vehicle noise would occur along the study area roadways.

Potential Stationary Noise Impacts
The analysis in Impact NOI-1 found that for the most noise intensive use proposed, the stationary noise levels at the nearby sensitive receptors would be below the City’s 55 dBA $L_{eq}$ daytime and 50 dBA $L_{eq}$ nighttime exterior stationary noise standards. Therefore, a less than significant stationary average noise impact would occur from the ongoing operations of the proposed project at the nearby sensitive receptors.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Temporary Increase in Ambient Noise Levels

| Impact NOI-4: | The proposed project will result in a substantial temporary increase in ambient noise levels in the project vicinity. |

Impact Analysis
The proposed project would not create a substantial temporary or periodic increase in ambient noise levels in the proposed project vicinity above noise levels existing without the proposed project.

The analysis in Impact NOI-1 found that, although there would be single-event noise exposure potential to cause intermittent noise nuisance from project construction activity, the effect on longer-term (hourly or daily) ambient noise levels would be small, but could result in annoyance or even sleep disturbance of nearby sensitive receptors if operating outside daytime hours. Therefore, compliance with the City’s permissible hours of construction, as well as compliance with best management practices, construction noise reduction measures outlined in Mitigation Measure NOI-1a, would ensure that construction noise would not result in sleep disturbance of sensitive receptors or result in a substantial temporary increase in ambient noise levels as measured at nearby sensitive receptors.
Level of Significance Before Mitigation
Potentially significant impact.

Mitigation Measures
Implement Mitigation Measure NOI-1a.

Level of Significance After Mitigation
Less than significant impact.
3.13 - Population and Housing

This section describes population and housing and potential effects from project implementation on the affected area and its surroundings. Descriptions and analysis in this section are based on population and housing information provided by the California Department of Finance and the City of Orange.

3.13.1 - Existing Conditions

Current Population and Housing Characteristics

The City of Orange’s population was estimated to be 141,240 as of January 1, 2016 by the California Department of Finance. Table 3.13-1 summarizes the current population and housing characteristics of the City of Orange.

Table 3.13-1: City of Orange Population and Housing Summary (2016)

<table>
<thead>
<tr>
<th>Population</th>
<th>Housing Units</th>
<th>Persons Per Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>141,240</td>
<td>45,272</td>
<td>3.07</td>
</tr>
</tbody>
</table>

Source: California Department of Finance, 2016.

Historic Population Growth

The City of Orange’s population growth has increased by 63,497 persons during the 45 years between 1970 and 2015. Table 3.13-2 summarizes the population growth that occurred between 1970 and 2015.


<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Change from Previous</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>77,365</td>
<td>—</td>
</tr>
<tr>
<td>1975</td>
<td>83,100</td>
<td>7.4%</td>
</tr>
<tr>
<td>1980</td>
<td>91,440</td>
<td>10.0%</td>
</tr>
<tr>
<td>1985</td>
<td>100,600</td>
<td>10.0%</td>
</tr>
<tr>
<td>1990</td>
<td>110,658</td>
<td>10.0%</td>
</tr>
<tr>
<td>1995</td>
<td>117,174</td>
<td>16.5%</td>
</tr>
<tr>
<td>2000</td>
<td>128,868</td>
<td>10.0%</td>
</tr>
<tr>
<td>2005</td>
<td>133,542</td>
<td>3.6%</td>
</tr>
<tr>
<td>2010</td>
<td>136,386</td>
<td>2.1%</td>
</tr>
<tr>
<td>2015</td>
<td>140,862</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

Source: California Department of Finance, 2016.
3.13.2 - Methodology

Impacts on population and housing were assessed by reviewing existing and anticipated population and housing figures provided by the California Department of Finance and the City of Orange General Plan. The proposed project’s impacts were evaluated by determining their consistency with these estimates and projections.

3.13.3 - Thresholds of Significance

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether impacts to population and housing are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (Refer to Section 7, Effects Found Not To Be Significant.)

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (Refer to Section 7, Effects Found Not To Be Significant.)

3.13.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Growth Inducement

| Impact POP-1: | The project would not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). |

Impact Analysis

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines provide the example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a project that may encourage or facilitate other activities that could significantly affect the environment.

The proposed project would develop 128 dwelling units and, therefore, has the potential to directly induce population growth. Table 3.13-3 summarizes the population growth attributable to the proposed project.
As shown in Table 3.13-3, the proposed project would increase the City’s population by 393 persons, which would represent a less than 1 percent increase relative to the City’s 2016 population estimate of 141,420. This would not be considered a significant population increase.

Furthermore, a portion of the project site is currently designated for residential use by the City of Orange General Plan and Orange Zoning Ordinance. This indicates that the project site has been contemplated to support residential development and, by extension, future population growth. Although the proposed project would include a General Plan Amendment and Rezone to change the land use designations, these changes would merely serve to allow for the master planning of the site to allow a combination of residential, open space, and recreational uses. Thus, the project site would continue to be designated for residential development.

Lastly, the project site is within an urbanized portion of the City of Orange where infrastructure and utilities including roadways, potable water, sewer, electricity, and natural gas are currently available. Thus, the development of the proposed project would not remove a physical barrier to growth that would allow for unplanned growth to occur.

Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

<table>
<thead>
<tr>
<th>Dwelling Units</th>
<th>Persons Per Dwelling Unit</th>
<th>Project Population Growth</th>
<th>City of Orange’s Population</th>
<th>Project Population Growth as a Percentage of City Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>3.07</td>
<td>393</td>
<td>141,420</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Source: FCS, 2018
3.14 - Public Services

3.14.1 - Introduction

This section describes the existing public services and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based in part on information provided by the City of Orange General Plan, City of Orange Fire Department, City of Orange Police Department, City of Orange Public Works, and the Orange Unified School District (OUSD). Written comments from service providers are provided in Appendix O.

3.14.2 - Environmental Setting

Fire Protection and Emergency Medical Services

The project site is located in an area served by the City of Orange Fire Department. The City of Orange Fire Department provides the City with full fire protection services and emergency medical service (EMS). The Fire Department is headquartered at 176 S. Grand Street, Orange, California.

Fire Stations

The Orange Fire Department emergency responders work out of eight fire stations strategically located throughout the City. The closest fire station to the project site is Orange Fire Station No. 8, located approximately 1.75 miles north of the project site at 5725 Carver Lane; there is also an Orange County Fire Authority Fire Station, 23, approximately 0.64 mile east of the project site at 5020 Santiago Canyon Road, Villa Park, CA 92869 (Table 3.14-1).

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Address</th>
<th>Distance From Project Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange Fire Department Station No. 8</td>
<td>5725 Carver Lane</td>
<td>1.75 miles</td>
</tr>
<tr>
<td>Orange County Fire Authority Station 23</td>
<td>5020 Santiago Canyon Road Villa Park, CA 92869</td>
<td>0.64 mile</td>
</tr>
</tbody>
</table>

Source: City of Orange, 2016.

Staffing and Organization

The Orange Fire Department consists of two sections: Services and Operations. The department provides emergency response, administrative, fire prevention, disaster preparedness, and arson investigation services. The Orange Fire Department employs approximately 137 personnel, including 124 sworn emergency responders.

The Orange Fire Department provides fire paramedic and ambulance service with an integrated paramedic/transportation system. This system uses front line engine, truck, and rescue ambulance companies to provide these emergency medical services. Every fire station houses at least one “paramedic assessment unit” (PAU) that is normally staffed with at least one paramedic. PAUs are normally in the form of an engine company. PAUs are at every station to achieve the goal of an
initial on-scene time for EMS intervention of less than 6 minutes. Then, the rescue ambulances located at Stations 1, 3, 4, and 5 arrive to complete a paramedic team.

The Orange Fire Department Headquarters at 176 South Grand Street, approximately 3.83 miles southwest of the project site, houses the Urban Search and Rescue Emergency Operation.

**Calls for Service**
In 2016, the Orange Fire Department responded to approximately 15,048 incidents, of which 80 percent (12,048 calls) were medical in nature. This reflects a call load virtually equal to 2015, in which the Fire Department responded to 15,090 incidents. Station No. 8 responded to 631 incidents in 2016.

**Response Time**
The Orange Fire Department’s average response time was 3 minutes, 45 seconds in 2016.

**Mutual Aid**
The Orange Fire Department has automatic aid agreements with the cities of Anaheim, Santa Ana, Garden Grove and the Orange County Fire Authority.

As noted above, the Orange County Fire Authority Station 23 is located 0.64 mile west the project site. In 2016, the Orange County Fire Authority responded to approximately 136,934 incidents, of which 76 percent (104,153) were medical in nature. The Orange County Fire Authority’s average response time was less than 7 minutes in 2016.

**Law Enforcement**
The Orange Police Department provides law enforcement to the City of Orange. The Police Department is headquartered at 1107 N. Batavia Street, which is approximately 4.6 miles west of the project site. The Police Department also maintains substations in Santiago Canyon and at the Outlets at Orange. The City of Orange is divided into 97 police reporting districts. The project is within police reporting district No. 94 with boundaries of Santiago Canyon Road and the Santiago Creek.

**Operation**
The Police Department has 167 sworn police officers, 60 full-time civilian support staff and 15 reserve officers. The response area is approximately 27 square miles with future expansion of up to 55 square files.

The Police Department does not use a standard officer-to-population or standard response time objective ratio to measure the adequacy of policing levels in the City of Orange. Instead, the Police Department analyzes demographics, service calls, population, crime trends and other changing factors to determine the level of police services needed.
Response Times

Emergency response times vary on average from 4 to 7 minutes, depending on other call priorities and location of police vehicles in relation to call location. The call response time accounts for the department’s policy requiring that two officers be available before responding to an emergency call. Each new development has a potential impact on response times and increased demand on police services. Using design mitigations and adding security measures could help reduce the number of times the Police Department responds to the project area.

Schools

The Orange Unified School District (OUSD) provides K-12 public school services to the City of Orange as well as portions of neighboring cities of Anaheim, Garden Grove, Santa Ana, and Villa Park. OUSD serves over 31,300 students with 29 elementary schools; five middle schools (two of which are charter schools), two high schools, a continuation high school, a K-8 math and science magnet school, and two special schools.

Linda Vista Elementary School, Santiago Middle School, and El Modena High School are the closest schools to the project site and are summarized in Table 3.14-2.

Table 3.14-2: Orange Unified School District Facilities

<table>
<thead>
<tr>
<th>School</th>
<th>Address</th>
<th>Enrollment</th>
<th>Average Class Size</th>
<th>Pupil/Teacher Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linda Vista Elementary School</td>
<td>1200 N. Cannon Street</td>
<td>486</td>
<td>29.4</td>
<td>22.0</td>
</tr>
<tr>
<td>Santiago Middle School</td>
<td>515 North Rancho Santiago Boulevard</td>
<td>967</td>
<td>28.4</td>
<td>22.0</td>
</tr>
<tr>
<td>El Modena High School</td>
<td>3920 Spring Street</td>
<td>2,169</td>
<td>24.7</td>
<td>20.1</td>
</tr>
</tbody>
</table>


Parks

The City of Orange owns and currently maintains 24 parks, which consist of approximately 251 acres of parkland. The following three types of park facilities are available for recreational use by the City’s residents and could be subject to impact from increased demand for recreational use as the City’s population increases:

- Neighborhood Parks (4 to 10 acres with a 0.5- to 1-mile radius service area) provide for the daily recreation needs of residents in the immediate area. Olive Park, El Modena Park, and Killefer Park are typical examples of the City’s neighborhood parks, which may include landscaped picnic areas, tot lots, hard court areas, multipurpose ball fields, and limited parking.

- Community Parks (15 to 40 acres with 1- to 2-mile radius service area) are larger in scale and provide a greater variety of recreational opportunities and facilities. Hart Park, Grijalva Park, and El Camino Real Park are typical examples of the City’s community parks, which host active
organized sports leagues, have lighted sports fields, may provide recreational instruction, and have sufficient area for larger community events.

- Regional Parks are typically 200 acres or larger and provide a greater diversity of recreational activities that cannot be fully met by neighborhood or community parks. For Orange residents, the three county regional parks that serve these needs are Irvine Park, Peters Canyon Park, and Santiago Oaks Park.

In addition to these three types of parks that provide opportunity for active recreation, the City also maintains Special Use Facilities that provide passive uses and historic or aesthetic amenities. These facilities include historic community assets such as Plaza Park, Pitcher Park, and Depot Park. The City’s community gardens and senior center also provide specialized activities.

**Library**

The Orange Public Library & Historic Center (Main Library) is located at 407 E. Chapman Avenue. The library closed in May 2005 for major construction and expansion, and was reopened in April 2007. The expansion added 28,000 square feet of space and now provides twice as many books, a homework center, a Teen Zone, a Children’s Library, a literacy center, a local history room, a Friends of the Orange Public Library bookstore, community meeting space, study room space, and 100 public-use computers.

Two branch libraries also serve the planning area. The El Modena Branch Library is located at 380 S. Hewes Street and the Taft Branch Library is located at 740 E. Taft Avenue. Each library is operated as a community resource and gathering place to provide library materials, computer access, meeting room space, and family programs to serve residents within the area.

**3.14.3 - Regulatory Framework**

**Federal and State**

*California Fire Code and California Building Code*

The International Fire Code and the International Building Code established by the International Code Council (ICC) and amended by the State of California prescribe performance characteristics and materials to be used to achieve acceptable levels of fire protection.

*Senate Bill 50*

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development, and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 state and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether state funding is available, whether the school district is eligible for state funding, and whether the school district meets certain additional criteria involving bonding capacity, year-round school, and the percentage of moveable classrooms in use.
California Government Code, Section 65995(b) and Education Code, Section 17620

SB 50 amended Section 65995 of the California Government Code, which contains limitations on Section 17620 of the Education Code, the statute that authorizes school districts to assess development fees within school district boundaries. Section 65995(b)(3) of the Government Code requires the maximum square footage assessment for development to be increased every 2 years, according to inflation adjustments. On January 22, 2014, the State approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) from $3.20 to $3.36 per square foot of assessable space for residential development of 500 square feet or more, and from $0.51 to $0.54 per square foot of chargeable covered and enclosed space for commercial/industrial development. School districts may levy higher fees if they apply to the State and meet certain conditions.

Quimby Act

The Quimby Act (Government Code Section 66477) allows local governments to require developers to dedicate land, donate conservation easements, or pay fees to fund parkland development. The Quimby Act has a standard of 3.5 acres of parkland per 1,000 residents.

Local

City of Orange

The City of Orange General Plan sets forth the following goals and policies that are relevant to public services:

Land Use Element

- **Goal 1:** Meet the present and future needs of all residential and business sectors with a diverse and balanced mix of land uses.
- **Policy 1.7:** Provide a range of open space and park amenities to meet the diverse needs of current and new residents.
- **Goal 6.0:** Advance development activity that is mutually beneficial to both the environment and the community.
- **Policy 6.3:** Establish and maintain greenways, and pedestrian and bicycle connections that complement the residential, commercial and open space areas they connect.
- **Policy 6.4:** Create and maintain open space resources that provide recreational opportunities, protect hillside vistas and ridgelines, and conserve natural resources.
- **Policy 7.1:** Coordinate with the Orange Unified School District and Community College District regarding future plans for their facilities.

Public Safety Element

- **Goal 3.0:** Protect lives and property of Orange residents and businesses from urban and wildlife fire hazards.
- **Policy 3.1:** Continue to identify and evaluate new potential fire hazards and fire hazard areas.
- **Policy 3.4:** Provide adequate fire equipment access and fire suppression resources to all developed and open space areas.
- **Policy 3.5:** Establish and maintain optimal emergency response times for fire safety. Require new development to ensure that City response times and service standards are maintained.
- **Goal 6.0:** Provide public safety services of the highest quality.
3.14.4 - Methodology

FCS reviewed information about public service and recreation providers in the project vicinity. The City of Orange General Plan and agency websites were reviewed for relevant information. FCS sent letters to service providers requesting information about their ability to serve the proposed project. The responses are provided in Appendix O.

3.14.5 - Thresholds of Significance

Public Services

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether environmental effects to public services are significant, the following questions are analyzed and evaluated.

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

b) Police protection?
c) Schools?
d) Parks?
e) Other public facilities?

3.14.6 - Project Impacts and Mitigation Measures

Fire Protection

Impact PS-1: The proposed project may result in a need for new or expanded fire protection facilities.

Impact Analysis

The City of Orange Fire Department would serve the project with fire protection and emergency medical services. The proposed project would develop up to 128 dwelling units, which would add 393 new residents to the City’s population.

The nearest fire station to the project site is Orange Fire Station No. 8, located 1.75 miles from the project site at 5725 Carver Lane. Using an average travel speed of 25 miles per hour, it would take a fire engine responding from Station No. 8 to the project site 4 minutes, 12 seconds. For comparison purposes, the Fire Departments average response time was 3 minutes, 45 seconds in 2016.

The Fire Department provided written comments (Appendix O) in May 2017 indicating that the proposed project would cause a substantial increase in calls for service relative to the existing sand and gravel operations on the project site. The Fire Department noted that the call volume for the project area was low, and, thus, Station No. 8 would be able to handle the increase in calls attributable to the proposed project with its existing resources.

However, the Fire Department noted the status of Orange County Fire Authority Station No. 23, which serves the City of Villa Park, was uncertain, and there is the possibility that Villa Park may elect to contract with the City of Orange for fire services, which would increase the number of calls for service from Station No. 8. At the time of this writing, Orange County Fire Authority Station No. 23 is still open and serving Villa Park; thus, it would be speculative to engage in further discussion of this topic.

The proposed project would take vehicular access from E. Santiago Canyon Road via a full-access signalized driveway aligned with Nicky Way. The Fire Department noted that the project would be required to provide two points of emergency access in accordance with Fire Code requirements. Mitigation Measure HAZ-5 requires the applicant to demonstrate compliance with all Fire Code emergency access requirements prior to issuance of building permits.

The eastern portion of the project site abuts Santiago Oak Regional Park and contains the wooded Santiago Creek Corridor. The Fire Department noted that the project site is located at the wildland/urban interface and indicated that the project would be subject to the City’s fuel modification requirements. The project proposes to strategically place approximately 68.5 acres of open space/grasslands and greenway with managed vegetation within the western, northern, and eastern portions of the project site, to provide sufficient protection from wildland fires, and alleviate
related impacts. However, Mitigation Measure HAZ-6 will be applied to require the applicant to prepare a Fuel Modification Plan and submit it to the City of Orange for review and approval prior to issuance of building permits, consistent with the Fire Department’s recommendation.

With the implementation of mitigation, the project would not directly create a need to construct new or expand existing fire protection or emergency medical services facilities. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Potential significant impact.

**Mitigation Measures**
Implement Mitigation Measures HAZ-5 and HAZ-6.

**Level of Significance After Mitigation**
Less than significant impact.

**Law Enforcement**

| Impact PS-2: | The proposed project would not result in a need for new or expanded police protection facilities. |

**Impact Analysis**

The City of Orange Police Department would provide law enforcement services to the project site. The proposed project would develop up to 128 dwelling units, which would add 393 new residents to the City’s population. This nominal increase in population would be expected to result in a minor increase in calls for law enforcement services.

The project site is located approximately 4.6 miles from Police Department headquarters; however, police officers continuously patrol the city limits 24 hours per day, 7 days per week and would likely to be able to respond from closer distances.

The Police Department provided written comments (Appendix O) in June 2017 indicating that construction sites can be sources of attractive nuisances, providing hazards, and inviting theft and vandalism. The Police Department noted that the project applicant would be required to employ construction security features, as set forth in Orange Municipal Code Chapter 15.52.110, including fencing, lighting, and other features that would secure the project site during construction, to reduce the likelihood of criminal activity.

The Police Department also noted that although the project could increase demand for additional police service; payment of the Police Facility Development Fee in accordance with Orange Municipal Code Section 3.13.020 would offset the increase attributable to the proposed project.

Lastly, the Police Department noted that the proposed project can minimize demand for police services by incorporating Crime Prevention through Environmental Design (CPTED) concepts into the proposed project. This involves considerations such as placement and orientation of structures;
access and visibility of common areas; and placement of doors, windows, addressing, and landscaping. Orange Municipal Code Chapter 15.52 requires CPTED design requirements and Building Security Standards to be incorporated into new projects. In summary, the proposed project would be required to comply with various Municipal Code requirements that pertain to security and safety and, therefore, the project would not create a need to construct new or expand existing police protection. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Schools**

**Impact PS-3:** The proposed project would not result in a need for new or expanded school facilities.

**Impact Analysis**
The Orange Unified School District would provide K-12 education to the proposed project. The proposed project would develop up to 128 dwelling units, which would add 393 new residents to the City’s population. Using a standard student generation rate of 0.5 student/dwelling unit, the proposed project would add 64 new students to the School District’s enrollment.

The school district assesses development fees to new residential projects to fund capital improvements to school facilities. Pursuant to Government Code Section 65995 payment of adopted development fees is the “full and complete mitigation” for impacts to school facilities and local governments are prohibited from assessing additional fees or exactions for school impacts. Accordingly, the applicant will pay the current fees at the time building permits are sought.

Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
Parks

Impact PS-4: The project would not result in a need for new or expanded park facilities.

Impact Analysis
The proposed project would develop up to 128 dwelling units, which would add 393 new residents to the City’s population. The population growth facilitated by the project would increase demand for parks.

The proposed project would provide 68.5 acres of open space and recreation uses, including greenways, open space, and trails. The provision of these facilities would be expected to offset the increased demand for such facilities because project residents would be expected to use the facilities closest to where they live.

The impacts associated with construction of these open space and recreational facilities have been evaluated throughout this Draft EIR. The project would not result in the off-site construction of new or expanded existing park facilities. Therefore, impacts associated with the construction or expansion of park and recreational facilities would be less than significant.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Other Public Facilities

Impact PS-5: The proposed project would not result in a need for new or expanded public facilities such as libraries.

Impact Analysis
The proposed project would develop up to 128 dwelling units, which would add 393 new residents to the City’s population. The population growth facilitated by the project would increase demand for other public facilities.

The Orange Public Library & Historic Center provides library services to the City of Orange. The closest library to the project site is the Charles P. Taft Library, located at 740 E. Taft Avenue. The City’s General Plan does not include any standards or goals for the provision of library services.

The project’s potential increase in population is a nominal increase compared with the existing population served by local libraries, and would not be expected to require new or substantially altered library facilities. Thus, the project would not result in the construction of new or expanded library branches. Therefore, impacts associated with other public facilities such as public libraries would be less than significant.
**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
3.15 - Recreation

3.15.1 - Introduction
This section describes the existing public services and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based, in part, on information provided by the Orange County Parks (OC Parks) website and the City of Orange General Plan.

3.15.2 - Environmental Setting

Parks

Regional
OC Parks operates 22 regional parks and preserves throughout Orange County. The closest park to the project site is Santiago Oaks Regional Park, which is located 0.25 mile to the east.

Santiago Oaks Regional Park
The 1,269-acre Santiago Oaks Regional Park encompasses Santiago Creek and the lower slopes of the Santa Ana Mountains. The regional park offers trails available for hiking, biking, or horseback riding.

Local
The City of Orange owns and currently maintains 24 parks, which consist of approximately 251 acres of parkland. The following three types of park facilities are available for recreational use by City residents and could be subject to impact from increased demand for recreational use as the City population increases:

- Neighborhood Parks (4 to 10 acres with a 0.5- to 1-mile radius service area) provide for the daily recreation needs of residents in the immediate area. Olive Park, El Modena Park, and Killefer Park are typical examples of the City's neighborhood parks, which may include landscaped picnic areas, tot lots, hard court areas, multipurpose ball fields, and limited parking.

- Community Parks (15 to 40 acres with a service area radius of 1 to 2 miles) are larger in scale and provide a greater variety of recreational opportunities and facilities. Hart Park, Grijalva Park, and El Camino Real Park are typical examples of the City's community parks, which host active organized sports leagues, have lighted sports fields, may provide recreational instruction, and have sufficient area for larger community events.

- Regional Parks are typically 200 acres or larger in size and provide a greater diversity of recreational activities that cannot be fully met by neighborhood or community parks. For Orange residents, the three county regional parks that serve these needs are Irvine Park, Peters Canyon Park, and Santiago Oaks Park.

In addition to these three types of parks that provide opportunity for active recreation, the City also maintains Special Use Facilities that provide passive uses and historic or aesthetic amenities. These
facilities include historic community assets such as Plaza Park, Pitcher Park, and Depot Park. The City’s community gardens and senior center also provide specialized activities.

**Trails**

*San Diego Creek Bike Trail*

The Santiago Creek Bike Trail, a paved Class I multi-use path, follows Santiago Creek from N. Broadway to N. Cannon Street, a distance of approximately 6 miles.

*Santiago Creek Trail*

The unpaved Santiago Creek Trail extends along the north bank of the creek from N. Cannon Street to Santiago Oaks Regional Park.

### 3.15.3 - Regulatory Framework

**State**

*Quimby Act*

The Quimby Act (Government Code Section 66477) allows local governments to require developers to dedicate land, donate conservation easements, or pay fees to fund parkland development. The Quimby Act has a standard of 3.5 acres of parkland per 1,000 residents.

**Local**

*City of Orange*

The City of Orange General Plan sets forth the following goals and policies that are relevant to recreation:

**Land Use Element**

- **Goal 1:** Meet the present and future needs of all residential and business sectors with a diverse and balanced mix of land uses.
- **Policy 1.7:** Provide a range of open space and park amenities to meet the diverse needs of current and new residents.
- **Goal 6.0:** Advance development activity that is mutually beneficial to both the environment and the community.
- **Policy 6.3:** Establish and maintain greenways, and pedestrian and bicycle connections that complement the residential, commercial and open space areas they connect.
- **Policy 6.4:** Create and maintain open space resources that provide recreational opportunities, protect hillside vistas and ridgelines, and conserve natural resources.

### 3.15.4 - Methodology

FCS reviewed information about recreation providers in the project vicinity. The OC Parks website and City of Orange General Plan were reviewed for relevant information.
3.15.5 - Thresholds of Significance

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether impacts to recreation are significant environmental effects, the following questions are analyzed and evaluated.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

3.15.6 - Project Impacts and Mitigation Measures

Increase Use of Parks

Impact REC-1: The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact Analysis

The proposed project would develop up to 128 dwelling units, which would add 393 new residents to the City’s population. The population growth facilitated by the project would increase demand for recreational facilities.

The proposed project would provide 68.5 acres of open space and recreation uses, including active use facilities (trail network) and passive use areas (open space and greenway). The provision of these facilities would be expected to offset the increased demand for such facilities because project residents would be expected to use the facilities closest to where they live.

The impacts associated with construction of this open space and recreational facilities have been evaluated throughout this Draft EIR. The project would not result in the off-site construction of new or expanded existing park facilities. Therefore, impacts associated with the construction or expansion of park and recreational facilities would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.
Recreational Facilities Physical Effect on Environment

Impact REC-2: The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact Analysis
The proposed project would provide 68.5 acres of open space and recreation uses, including active use facilities (trail network) and passive use areas (open space and greenway). The impacts associated with construction of this open space and recreational facilities have been evaluated throughout this Draft EIR. The project would not result in the off-site construction of new or expanded existing park facilities. Therefore, impacts associated with the construction or expansion of park and recreational facilities would be less than significant.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.
3.16 - Transportation and Traffic

This section describes the transportation and traffic setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Traffic Impact Analysis (TIA) prepared by Linscott, Law, & Greenspan, Engineers, which is provided in Appendix P.

3.16.1 - Existing Conditions

Roadway Network

Regional access to the site is provided via the State Route 55 (SR-55) and the SR-241 freeways. The principal local network of streets serving the proposed project includes East Santiago Canyon Road and Cannon Street. The following discussion provides a brief synopsis of these key area streets. The descriptions are based on an inventory of existing roadway conditions. Exhibit 3.16-1 depicts the street system, including study facilities. Exhibit 3.16-2 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this section; this exhibit identifies the number of travel lanes for key arterials, as well as intersection configurations and controls for the key area study intersections.

East Santiago Canyon Road

East Santiago Canyon Road is generally a four-lane divided roadway that borders the project site on the south. Between Newport Boulevard and Jamboree Road, East Santiago Canyon Road is a six-lane roadway. East Santiago Canyon Road will provide ingress/egress to the project site via one full access signalized driveway, located directly opposite Nicky Way. On-street parking is generally not permitted along this roadway within the vicinity of the project. The posted speed limit on East Santiago Canyon Road is 55 miles per hour (mph) west of Hewes Street, 45 mph between Hewes Street and Cannon Street and 50 mph east of Cannon Street. Traffic signals control the study intersections of East Santiago Canyon Road at Hewes Street, Cannon Street, Orange Park Boulevard, Meads Avenue, Newport Boulevard, and Jamboree Road.

Cannon Street

Cannon Street is a four-lane divided roadway oriented in the north-south direction. On-street parking is generally not permitted along this roadway within the vicinity of the project. The posted speed limit on Cannon Street is 45 mph north of East Santiago Canyon Road and 40 mph south of East Santiago Canyon Road. Traffic signals control the study intersections of Cannon Street at Serrano Avenue, Taft Avenue and East Santiago Canyon Road.

Study Facilities

Ten key study intersections and 17 key roadway segments selected for evaluation were determined based on coordination with City of Orange Traffic Engineering staff and application of the “51 or more peak-hour trip threshold” outlined in the City of Orange Traffic Impact Analysis Guidelines, dated August 15, 2007. The intersections and roadway segments listed below provide local access to the study area and define the extent of the boundaries for this traffic impact investigation. The study facilities are summarized in Table 3.16-1.
### Table 3.16-1: Study Facilities Summary

<table>
<thead>
<tr>
<th>ID.</th>
<th>Facility Type</th>
<th>Name</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intersection</td>
<td>Cannon Street/Serrano Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>2</td>
<td>Intersection</td>
<td>Cannon Street/Taft Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>3</td>
<td>Intersection</td>
<td>Hewes Street/Villa Park Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>4</td>
<td>Intersection</td>
<td>Cannon Street/East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>5</td>
<td>Intersection</td>
<td>Orange Park Boulevard/East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>6</td>
<td>Intersection</td>
<td>Meads Avenue/East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>7</td>
<td>Intersection</td>
<td>Newport Boulevard/East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>8</td>
<td>Intersection</td>
<td>Jamboree Road/East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>9</td>
<td>Intersection</td>
<td>Jamboree Road/East Santiago Canyon Road—Chapman Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>10</td>
<td>Intersection</td>
<td>Orange Park Boulevard/Chapman Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>A</td>
<td>Roadway Segment</td>
<td>Cannon Street north of Serrano Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>B</td>
<td>Roadway Segment</td>
<td>Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>C</td>
<td>Roadway Segment</td>
<td>Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>D</td>
<td>Roadway Segment</td>
<td>Cannon Street south of East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>E</td>
<td>Roadway Segment</td>
<td>Villa Park Road west of Hewes Street</td>
<td>City of Orange</td>
</tr>
<tr>
<td>F</td>
<td>Roadway Segment</td>
<td>Hewes Street south of Villa Park Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>G</td>
<td>Roadway Segment</td>
<td>East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>City of Orange</td>
</tr>
<tr>
<td>H</td>
<td>Roadway Segment</td>
<td>East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>City of Orange</td>
</tr>
<tr>
<td>I</td>
<td>Roadway Segment</td>
<td>East Santiago Canyon Road between Orange Park Boulevard and Meads Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>J</td>
<td>Roadway Segment</td>
<td>East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>City of Orange</td>
</tr>
<tr>
<td>K</td>
<td>Roadway Segment</td>
<td>East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>L</td>
<td>Roadway Segment</td>
<td>Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
<td>City of Orange</td>
</tr>
<tr>
<td>M</td>
<td>Roadway Segment</td>
<td>Jamboree Road south of Chapman Avenue/East Santiago Canyon Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>N</td>
<td>Roadway Segment</td>
<td>East Santiago Canyon Road east of Jamboree Road</td>
<td>City of Orange</td>
</tr>
<tr>
<td>O</td>
<td>Roadway Segment</td>
<td>Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
<td>City of Orange</td>
</tr>
<tr>
<td>P</td>
<td>Roadway Segment</td>
<td>Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
<td>City of Orange</td>
</tr>
<tr>
<td>Q</td>
<td>Roadway Segment</td>
<td>Orange Park Boulevard between East Santiago Canyon Road and Chapman Avenue</td>
<td>City of Orange</td>
</tr>
</tbody>
</table>

Exhibit 3.16-1
Roadway Network

Source: Linscott, Law & Greenspan, Engineers 2017
Exhibit 3.16-2

Existing Roadway Conditions and Intersection Controls

Source: Linscott, Law & Greenspan, Engineers 2017
The Level of Service (LOS) investigations at these key locations were used to evaluate the potential traffic-related impacts associated with area growth, cumulative projects and the proposed project. When necessary, the TIA recommends intersection and/or roadway segment improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable Level of Service and/or mitigate the impact of the project.

**Existing Traffic Volumes**

Ten key study intersections and 17 key roadway segments have been identified as the locations at which to evaluate existing and future traffic operating conditions. Some portion of potential project-related traffic will pass through each of these intersections/roadway segments, and their analysis will reveal the expected relative impacts of the project. These key intersections and key roadway segments were selected for evaluation based on coordination with City of Orange Traffic Engineering staff and application of the “51 or more peak-hour trip threshold” outlined in the City of Orange Traffic Impact Analysis Guidelines, dated August 15, 2007.

Existing daily, AM and PM peak-hour traffic volumes for the 10 key study intersections and 17 key roadway segments evaluated in the TIA were obtained from daily machine and manual peak-hour turning movement counts conducted by Transportation Studies Inc. in January 2017. Exhibit 3.16-3 and Exhibit 3.16-4 illustrate the existing AM and PM peak-hour traffic volumes at the 10 key study intersections evaluated in the TIA, respectively. Exhibit 3.16-4 also presents the existing average daily traffic volumes for the 14 roadway segments in the vicinity of the project.

Appendix P contains the detailed peak-hour count sheets for the key intersections evaluated in the TIA. Appendix P also contains the average daily traffic volumes for the key roadway segments.

**Intersection Operations**

Existing AM and PM peak-hour operating conditions for the 10 key study intersections were evaluated using the Intersection Capacity Utilization (ICU) methodology for signalized intersections.

**Intersection Capacity Utilization Method of Analysis (Signalized Intersections)**

In conformance with City of Orange and County of Orange requirements, existing AM and PM peak-hour operating conditions for the key signalized study intersections were evaluated using the ICU method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Consistent with City of Orange and County of Orange requirements, the ICU calculations use a lane capacity of 1,700 vehicles per hour (vph) for through and all turn lanes. A clearance adjustment factor of 0.05 was added to each Level of Service calculation. Consistent with Orange County Congestion Management Plan requirements, the ICU calculations use a lane capacity of 1,700 vph for left-turn, through, and right-turn lanes. A clearance adjustment factor of 0.05 was added to each Level of Service calculation.
The ICU value translates to a LOS estimate, which is a relative measure of the intersection performance. The ICU value is the sum of the critical V/C ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in Table 3.16-2.

Table 3.16-2: Level of Service Criteria for Signalized Intersections

<table>
<thead>
<tr>
<th>Level of Service (LOS)</th>
<th>Intersection Capacity Utilization Value (V/C)</th>
<th>Level of Service Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&lt; 0.60</td>
<td>EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.</td>
</tr>
<tr>
<td>B</td>
<td>0.61–0.70</td>
<td>VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.</td>
</tr>
<tr>
<td>C</td>
<td>0.71–0.80</td>
<td>GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.</td>
</tr>
<tr>
<td>D</td>
<td>0.81–0.90</td>
<td>FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.</td>
</tr>
<tr>
<td>E</td>
<td>0.91–1.00</td>
<td>POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 1.00</td>
<td>FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.</td>
</tr>
</tbody>
</table>


Volume to Capacity Ratio Method of Analysis (Roadway Segments)

Existing daily operating conditions for the 17 key roadway segments have been investigated according to the daily V/C ratio of each link. The daily V/C relationship is used to estimate the LOS of the roadway segment with the volume based on 24-hour traffic count data and the capacity based on the street classifications contained within the City of Orange General Plan Circulation and Mobility Element. The daily roadway link capacity of each street classification according to the City of Orange General Plan Circulation and Mobility Element is presented in Table 3.16-3, along with the six corresponding service levels and associated V/C ratios.
Exhibit 3.16-4

Existing PM Peak Hour and Daily Traffic Volumes

Source: Linscott, Law & Greenspan, Engineers 2017
Table 3.16-3: Roadway Link Capacities

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Number of Lanes</th>
<th>Level of Service Criteria with Associated Roadway Capacity Daily Values (VPD)</th>
<th>Level of Service (LOS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Principal</td>
<td>8 lanes divided</td>
<td>45,000</td>
<td>52,500</td>
</tr>
<tr>
<td>Major</td>
<td>6 lanes divided</td>
<td>33,900</td>
<td>39,400</td>
</tr>
<tr>
<td>Primary</td>
<td>4 lanes divided</td>
<td>22,500</td>
<td>26,300</td>
</tr>
<tr>
<td>Secondary</td>
<td>4 lanes undivided</td>
<td>14,400</td>
<td>16,800</td>
</tr>
<tr>
<td>Collector</td>
<td>2 lanes undivided</td>
<td>7,200</td>
<td>8,400</td>
</tr>
<tr>
<td></td>
<td>V/C Ratio</td>
<td>≤ 0.60</td>
<td>0.61–0.70</td>
</tr>
</tbody>
</table>

Note: VPD = vehicles per day

Level of Service Criteria

City of Orange Locations
According to the City of Orange General Plan Circulation Element and stated in the City of Orange Traffic Impact Analysis Guidelines, dated August 15, 2007, LOS D is the minimum acceptable condition that should be maintained during the morning and evening peak commute hours on all intersections and LOS D is the minimum acceptable condition that should be maintained on all roadway segments.

County of Orange Locations
According to the County of Orange criteria, LOS D is the minimum acceptable condition that should be maintained during the morning and evening peak commute hours on all intersections and LOS C is the minimum acceptable condition that should be maintained on all roadway segments.

Existing Level of Service Results
Given that the project applicant voluntarily postponed operation of the permitted sand and gravel operation in October 2015 as part of an agreement with the surrounding community, the TIA analyzes two baseline conditions; 1) without trip credit for the permitted/entitled sand and gravel operation; and 2) with trip credit for the permitted/entitled sand and gravel operation.

With Trip Credit Existing Traffic Conditions
As discussed with City of Orange staff, given that the site’s existing operation is currently dormant, the trips generated by the existing entitled land use (i.e. 686 daily trips, 63 AM peak-hour trips and 32 PM peak-hour trips) have been added to the existing daily, AM peak-hour and PM peak-hour
traffic condition resulting in a “With Trip Credit Existing” traffic condition. Exhibits 3.16-8 and 3.16-9 present the With Trip Credit Existing AM and PM peak-hour traffic volumes at the 10 key study intersections. Exhibit 3.16-9 also presents the With Trip Credit Existing daily traffic volumes.

**Intersections**

Table 3.16-4 summarizes the peak-hour level of service results at the 10 key study intersections for Existing and With Trip Credit Existing traffic conditions. Column (1) of ICU/LOS values in Table 3.16-4 presents a summary of existing AM and PM peak-hour traffic conditions. Column (2) presents With Trip Credit Existing traffic conditions, which includes trips generated by the existing entitled land use.

**Table 3.16-4: Existing and With Trip Credit Existing Peak-Hour Intersection Capacity Analysis**

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) Existing Traffic Conditions</th>
<th>(2) With Trip Credit Existing Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ICU</td>
<td>LOS</td>
</tr>
<tr>
<td>1. Cannon Street at Serrano Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.847</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td><strong>0.912</strong></td>
<td>E</td>
</tr>
<tr>
<td>2. Cannon Street at Taft Avenue</td>
<td>AM</td>
<td>D</td>
<td><strong>0.983</strong></td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Hewes Street at Villa Park Road</td>
<td>AM</td>
<td>D</td>
<td>0.742</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Cannon Street at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.749</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Orange Park Boulevard at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.838</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Meads Avenue at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.784</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Newport Boulevard at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.767</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Jamboree Road at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.641</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Jamboree Road at Chapman Avenue/East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.533</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Orange Park Boulevard at Chapman Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.418</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Review of Column (1) and Column (2) of Table 3.16-4 indicates that two of the 10 key study intersections are forecast to operate at unacceptable levels of service during the AM and/or PM peak-hours under Existing and With Trip Credit Existing traffic conditions. The remaining eight key study intersections are forecast to operate at an acceptable service level during the AM and PM peak-hours. The locations projected to operate at an adverse LOS under Existing and With Trip Credit Existing traffic conditions are shown in the first two rows of Table 3.16-4.

Roadway Segments

Table 3.16-5 summarizes the roadway segment level of service results at the 17 key roadway segments for Existing and With Trip Credit Existing traffic conditions. Column (1) shows the number of lanes, Column (2) shows the arterial classification and Column (3) shows the existing LOS “E” capacity. Column (4) presents a summary of existing daily traffic conditions. Column (5) lists With Trip Credit Existing daily traffic conditions, which includes trips generated by the existing entitled land use.

Review of Column (4) and Column (5) of Table 3.16-5 indicates that one of the 17 key roadway segments is forecast to operate at an unacceptable level of service on a daily basis under Existing and With Trip Credit Existing traffic conditions. Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) is forecast to operate at unacceptable LOS F on a daily basis under Existing and With Trip Credit Existing traffic conditions. The remaining 16 key roadway segments are forecast to operate at an acceptable service level on a daily basis under Existing and With Trip Credit Existing traffic conditions.
Table 3.16-5: Existing and With Trip Credit Existing Roadway Segment Level of Service Summary

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Existing Traffic Conditions</th>
<th>(5) With Trip Credit Existing Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Cannon Street north of Serrano Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>20,171</td>
<td>0.538 A</td>
</tr>
<tr>
<td>B. Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>39,787</td>
<td>1.061 F</td>
</tr>
<tr>
<td>C. Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>31,799</td>
<td>0.848 D</td>
</tr>
<tr>
<td>D. Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>8,940</td>
<td>0.238 A</td>
</tr>
<tr>
<td>E. Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>24,423</td>
<td>0.651 B</td>
</tr>
<tr>
<td>F. Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>8,807</td>
<td>0.367 A</td>
</tr>
<tr>
<td>G. East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,118</td>
<td>0.696 B</td>
</tr>
<tr>
<td>H. East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>29,009</td>
<td>0.774 C</td>
</tr>
<tr>
<td>I. East Santiago Canyon Road between Orange Park Boulevard and Meads Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,936</td>
<td>0.718 C</td>
</tr>
<tr>
<td>J. East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,303</td>
<td>0.701 C</td>
</tr>
</tbody>
</table>
Public Transit

Orange County Transportation Authority (OCTA) provides bus service within Orange County. The closest OCTA bus route to the project site is Route 54, which travels between Santiago Canyon College in Orange, and Eastgate Plaza Shopping Center in Garden Grove. The closest Route 54 stop is on East Santiago Canyon Road in the vicinity of Santiago Canyon College, approximately 2 miles from the project site.

Route 54 provides service 7 days a week, with service between 4:40 a.m. and 11:43 p.m. on weekdays, 5:59 a.m. to 10:04 p.m. on Saturdays, and 6:29 a.m. and 9:24 p.m. on Sundays and holidays.

Bicycle Circulation

Class II bike lanes (on-road bike lanes delineated by painted strips and other features) exist along the following roadway segments within the vicinity of the project:

- East Santiago Canyon Road
- Serrano Avenue
- Taft Avenue
- Cannon Street
- Newport Avenue
- Chapman Avenue
- Jamboree Road

Additionally, Class I bike paths (off-road bike paths) exist west of Jamboree Road, extending from Chapman Avenue to the Irvine Park, west of Hewes Street, extending from Bond Avenue to Villa Park Road, north of Villa Park Road, extending from Hewes Street to Cannon Street, and west of Cannon Street, extending approximately 1,000 feet north of East Santiago Canyon Road.

Pedestrian Circulation

Pedestrian circulation is provided via existing public sidewalks along East Santiago Canyon Road, Chapman Avenue, Jamboree Road, and other key roadway segments. Portions of East Santiago Canyon Road (i.e., between Newport Boulevard and Meads Avenue) do not provide consistent sidewalks. Additionally, equestrian paths are provided throughout the vicinity of the project, particularly along East Santiago Canyon Road.

3.16.2 - Regulatory Setting

Local

City of Orange

General Plan

The City of Orange General Plan sets forth the following goals and policies associated with transportation that are relevant to the proposed project:
Circulation Element

- **Goal 1.0:** Provide a safe, efficient, and comprehensive circulation system that serves local needs, meets forecasted demands, and sustains quality of life in neighborhoods.

- **Policy 1.1:** Plan, build, and maintain an integrated, hierarchical, and multi-modal system of roadways, pedestrian walkways, and bicycle paths throughout the City.

- **Policy 1.7:** Consolidate driveways along roadways that provide access to commercial uses to minimize side street interruption and promote smooth traffic flows.

- **Goal 4.0:** Provide efficient and accessible modes of pedestrian, bicycle, and equestrian transportation and improved facilities and amenities.

- **Policy 4.1:** Create a comprehensive bicycle network that is integrated with other transportation systems by establishing complementary on-street and off-street facilities as identified in the City of Orange Bikeways Master Plan and OCTA Commuter Bikeways Strategic Plan, including Santiago Creek, the Santa Ana River, and the Tustin Branch Trail.

Growth Management Element

- **Goal 1.0:** Reduce traffic congestion within the City.

- **Policy 1.1:** Establish LOS D as the level of service standard for traffic circulation within the City for both roadway segments and peak-hour signalized intersection movements.

- **Policy 1.2:** Ensure completion of transportation improvements as agreed upon by the City and developer prior to completion of a development project.

- **Policy 1.3:** Ensure that new development pays its fair share of street improvement costs, including regional traffic mitigation. New revenues generated from Measure M, if available, shall not be used to replace private developer funding which has been omitted for any project.

- **Policy 1.4:** Continue to collect transportation impact fees for improvements within the City boundaries and work with adjacent jurisdictions to determine that an appropriate level of transportation impact fees are maintained within the established County Growth Management Areas.

- **Policy 1.9:** Ensure that new developments incorporate non-motorized and alternative transit amenities such as bike racks, bus benches and shelters, and pedestrian connections.

**Performance Standards**

The City of Orange sets forth the following performance standards for intersections and roadway segments. A project may have a significant impact if any of the following occur:

**Intersections**

- An unacceptable peak-hour LOS at any of the key intersections is projected. According to the City’s Circulation Element and stated in the City of Orange Traffic Impact Analysis Guidelines, dated August 15, 2007, LOS D is the minimum acceptable condition that should be maintained during the morning and evening peak commute hours on all intersections; and

- The project increases traffic demand at the study intersection by 1 percent of capacity (ICU increase ≥ 0.010), causing or worsening LOS E or LOS F (ICU > 0.900).

**Roadway Segments**

- An unacceptable daily LOS at any of the key roadway segments is projected. According to the City of Orange General Plan Circulation Element and stated in the City of Orange Traffic Impact...
Analysis Guidelines, dated August 15, 2007, LOS D is the minimum acceptable condition that should be maintained on all roadway segments; and

- The project increases traffic demand at the roadway segment by 1 percent of capacity (V/C increase ≥ 0.010), causing or worsening LOS E or LOS F (V/C > 0.900).

**County of Orange**

**Performance Standards**

The County of Orange sets forth the following performance standards for intersections and roadway segments. A project may have a significant impact if any of the following occur:

**Intersections**

- The County of Orange along with City of Orange considers LOS D to be the minimum acceptable condition that should be maintained during the AM and PM peak-hours for all intersections. For the TIA, impacts to local and regional transportation systems shall be considered significant if the project increases traffic demand at a key study intersection by 1.0 percent of capacity (ICU increase ≥ 0.01), causing or worsening LOS E or F (ICU > 0.90). This criterion is based on the “1 percent measurable impact criteria” contained in the County of Orange Transportation Implementation Manual (TIM) guidelines.

**Roadway Segments:**

- An unacceptable daily LOS at any of the key roadway segments is projected. According to the Guidance for Administration of the Orange County Master Plan of Arterial Highways, dated October 22, 2012, LOS C is the minimum acceptable condition that should be maintained on all roadway segments; and

- The project increases traffic demand at the roadway segment by 1 percent of capacity (V/C increase ≥ 0.010), causing or worsening LOS D, LOS E or LOS F (V/C > 0.800).

3.16.3 - Methodology

Linscott, Law, & Greenspan, Engineers prepared a TIA. The methodology of the analysis is described as follows. The report is provided in Appendix P.

**Traffic Forecasting Methodology**

In order to estimate the traffic impact characteristics of the proposed project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic on a peak-hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel...
speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational LOS conditions at selected key intersections using expected future traffic volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the project’s impacts identified.

**Project Traffic Generation**

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the 9th Edition of Trip Generation, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2012].

Given that the project Applicant voluntarily postponed operation of the permitted sand and gravel operation in October 2015 as part of an agreement with the surrounding community, the TIA analyzes two baseline conditions; 1) without trip credit for the permitted/entitled sand and gravel operation; and 2) with trip credit for the permitted/entitled sand and gravel operation.

Table 3.16-6 summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed project and also presents the project’s forecast peak-hour and daily traffic volumes “Without Sand and Gravel Credit.” As shown in the upper portion of Table 3.16-6, the trip generation potential of the proposed project was estimated using trip rates for ITE Land Use Code 210: Single-Family Detached Housing.

Review of Table 3.16-6 shows that the proposed project is forecast to generate 1,219 daily trips, with 97 trips (24 inbound, 73 outbound) produced in the AM peak-hour and 128 trips (81 inbound, 48 outbound) produced in the PM peak-hour on a “typical” weekday. The potential traffic impacts of the aforementioned net project trips are evaluated in the “Without Sand and Gravel Credit” traffic impact analysis section of the TIA. It should be noted that the trip generation methodology and forecasts were approved by City of Orange staff prior to proceeding with further analysis.

Table 3.16-7 summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed project and the existing entitled land use (i.e. the Existing Materials Recycling and Backfilling Operation) and also presents the project’s forecast peak-hour and daily traffic volumes “With Sand and Gravel Credit.” As shown in the upper portion of Table 3.16-7, the trip generation potential of the proposed project was estimated using trip rates for ITE Land Use Code 210: Single-Family Detached Housing. The trip generation potential of the existing/entitled land use is based on traffic counts conducted during normal operation in October/November 2010 and adjusted to account for the entitled 7:00 a.m. to 7:00 p.m. operation.
Review of the middle portion of Table 3.16-7 shows that the proposed project is forecast to generate 1,219 daily trips, with 97 trips (24 inbound, 73 outbound) produced in the AM peak-hour and 128 trips (81 inbound, 48 outbound) produced in the PM peak-hour on a “typical” weekday.

For the existing entitled land use, a review of the lower portion of Table 3.16-7 shows that the existing trip generation potential of the Existing Materials Recycling and Backfilling Operation based on existing counts totals 686 daily trips, with 63 trips (34 inbound, 29 outbound) produced in the AM peak-hour and 32 trips (15 inbound, 17 outbound) produced in the PM peak-hour. It should be noted that the Daily and PM peak-hour trips include additional traffic generation based on an extrapolation of the existing site traffic count data to 7:00 p.m.

Review of the last row of Table 3.16-7 shows that with application of existing trip credits, the proposed project is forecast to generate a net of 542 daily trips, a net of 34 AM peak-hour trips (-10 inbound, 44 outbound) and a net of 97 PM peak-hour trips (66 inbound, 31 outbound). The potential traffic impacts of the aforementioned net project trips are evaluated in the “With Sand and Gravel Credit” traffic impact analysis section of Appendix P. It should be noted that the trip generation methodology and forecasts were approved by City of Orange staff prior to proceeding with further analysis.

It should be noted that considering the significant amount of truck traffic associated with the entitled use on the site, the net project traffic generation forecast for the project could include the application of passenger car equivalents (PCE’s) for the trucks that utilized the site as part of the entitled Materials Recycling and Backfilling Operation that has been operating on the site. The volume and type (axles) of trucks was derived from the traffic counts conducted in 2011 when the site operation was at its peak. As such, the net project traffic generation forecast, based on PCE factors, results in -251 net daily trips, with -33 net AM peak-hour trips (-44 inbound, 11 outbound) and 62 net PM peak-hour trips (50 inbound, 12 outbound). Compared with the net traffic generation forecast presented in Table 3.16-6, the net project traffic generation has 784 fewer daily trips, 66 fewer AM peak-hour trips, and 34 fewer PM peak-hour trips with the application of the PCE factors.

Table 3.16-6: Project Traffic Generation Forecast (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>ITE Land Use Code/Project Description</th>
<th>ITE Land Use Code/Project Description</th>
<th>Daily Two-Way</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Enter</td>
<td>Enter</td>
<td>Exit</td>
</tr>
<tr>
<td>Generation Factors</td>
<td>210: Single-Family Detached Housing (TE/DU)</td>
<td>9.52 percent</td>
<td>25 percent</td>
<td>75 percent</td>
</tr>
<tr>
<td>Proposed Project Generation Forecast</td>
<td>Rio Santiago Residential (128 DU)</td>
<td>1,219</td>
<td>24</td>
<td>72</td>
</tr>
</tbody>
</table>

Note:  
1 Based on traffic counts conducted during normal operation in October/November 2010 and adjusted to account for a 7:00 a.m. to 7:00 p.m. operation. These entitled trips will be added to the existing traffic.

Table 3.16-7: Project Traffic Generation Forecast (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>ITE Land Use Code/Project Description</th>
<th>Daily Two-Way</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enter</td>
<td>Exit</td>
<td>Total</td>
</tr>
<tr>
<td>Generation Factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>210: Single-Family Detached Housing (TE/DU)</td>
<td>9.52</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Proposed Project Generation Forecast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rio Santiago Residential (128 DU)</td>
<td>1,219</td>
<td>24%</td>
<td>72%</td>
</tr>
<tr>
<td>Existing Entitled Land Use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Materials Recycling and Backfilling Operation¹</td>
<td>686</td>
<td>34%</td>
<td>29%</td>
</tr>
<tr>
<td>Total Net Traffic Generation Forecast</td>
<td>542</td>
<td>-10%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Note: ¹ Based on traffic counts conducted during normal operation in October/November 2010 and adjusted to account for a 7:00 a.m. to 7:00 p.m. operation. These entitled trips will be added to the existing traffic.


Project Traffic Distribution and Assignment

Exhibit 3.16-5 illustrates the general, directional traffic distribution pattern for the proposed project. Project traffic volumes both entering and exiting the project site have been distributed and assigned to the adjacent street system based on the following considerations:

- Directional flows on the freeways in the immediate vicinity of the project site (i.e., SR-55 and SR-241 freeways),
- The site’s proximity to major traffic carriers (i.e., East Santiago Canyon Road),
- Expected localized traffic flow patterns based on adjacent street channelization and presence of traffic signals,
- Ingress/egress availability at the project site, and
- Trip distribution information contained within the Rio Santiago TIA, prepared by Vista Environmental, dated January 2013.

The anticipated AM and PM peak-hour project traffic volumes associated with the project “Without Sand and Gravel Credit” are presented in Exhibits 3.16-6A and 3.16-6B, respectively. Exhibit 3.16-6B also presents the daily project traffic volumes. The traffic volume assignments presented in Exhibits 3.16-6A and 3.16-6B reflect the traffic distribution characteristics shown in Exhibit 3.16-5 and the traffic generation forecast presented in Table 3.16-6.

The anticipated AM and PM peak-hour project traffic volumes associated with the project “With Sand and Gravel Credit” are presented in Exhibits 3.16-7A and 3.16-7B, respectively. Exhibit 3.16-7B
also presents the daily project traffic volumes. The traffic volume assignments presented in Exhibits 3.16-7A and 3.16-7B reflect the traffic distribution characteristics shown in Exhibit 3.16-5 and the traffic generation forecast presented in Table 3.16-7.

**With Trip Credit Existing Traffic Conditions**

As discussed with City of Orange staff, given that operations at the site are currently limited and unpredictable, the trips generated by the existing entitled land use (i.e., 686 daily trips, 63 AM peak-hour trips and 32 PM peak-hour trips) have been added to the existing daily, AM peak-hour and PM peak-hour traffic condition resulting in a “With Trip Credit Existing” traffic condition. Exhibit 3.16-8 and Exhibit 3.16-9 present the With Trip Credit Existing AM and PM peak-hour traffic volumes at the 10 key study intersections. Exhibit 3.16-9 also presents the With Trip Credit Existing daily traffic volumes.

**Existing With Project Traffic Conditions (Without Sand and Gravel Credit)**

The Existing With project “Without Sand and Gravel Credit” traffic conditions have been generated based upon existing conditions and the estimated project traffic. These forecast traffic conditions have been prepared pursuant to the California Environmental Quality Act (CEQA) guidelines, which require that the potential impacts of a project be evaluated upon the circulation system as it currently exists. This traffic volume scenario and the related intersection capacity analyses will identify the roadway improvements necessary to mitigate the direct traffic impacts of the project, if any.

Exhibits 3.16-10A and 3.16-11A present projected AM and PM peak-hour traffic volumes at the 10 key study intersections and project driveway with the addition of the trips generated by the project “Without Sand and Gravel Credit” to existing traffic volumes respectively. Exhibit 3.16-11A also presents the existing with project daily traffic volumes.

**Existing With Project Traffic Conditions (With Sand and Gravel Credit)**

The Existing With Project “With Sand and Gravel Credit” traffic conditions have been generated based upon existing conditions and the estimated project traffic. These forecast traffic conditions have been prepared pursuant to the CEQA guidelines, which require that the potential impacts of a project be evaluated upon the circulation system as it currently exists. This traffic volume scenario and the related intersection capacity analyses will identify the roadway improvements necessary to mitigate the direct traffic impacts of the project, if any.

Exhibits 3.16-10B and 3.16-11B present projected AM and PM peak-hour traffic volumes at the 10 key study intersections and project driveway with the addition of the trips generated by the project “With Sand and Gravel Credit” to existing traffic volumes (i.e. With Trip Credit existing traffic volumes), respectively. Exhibit 3.16-11B also presents the existing with project daily traffic volumes.

**Future Traffic Conditions**

**Year 2022 Without Project Traffic Conditions**

**Ambient Growth Traffic**

Horizon year, background traffic growth estimates have been calculated using an ambient traffic growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to
the development of projects outside the study area. The future growth in traffic volumes has been calculated at 1 percent per year. Applied to the Year 2017 existing traffic volumes, this factor results in a 5 percent growth in existing volumes to the near-term horizon Year 2022. It should be noted that the five percent growth was applied to the With Trip Credit Existing traffic volumes shown previously in Exhibit 3.16-8 and Exhibit 3.16-9.

**Cumulative Projects Traffic**

In order to make a realistic estimate of future on-street conditions prior to implementation of the proposed project, the status of other known development projects (cumulative projects) in the vicinity of the proposed project has been researched at the City of Orange. With this information, the potential impact of the proposed project can be evaluated within the context of the cumulative impact of all ongoing development. Based on our research, there are four cumulative projects in the City of Orange within the vicinity of the subject site that have either been built but not yet fully occupied, or are being processed for approval. These four cumulative projects have been included as part of the cumulative background setting.

Table 3.16-8 provides a brief description and location for each of the four cumulative projects. Exhibit 3.16-12 graphically illustrates the location of the four cumulative projects. These cumulative projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections and key roadway segments.

Table 3.16-9 presents the development totals and resultant trip generation for the four cumulative projects. As shown in Table 3.16-9, the cumulative projects are forecast to generate a total of 11,969 daily trips, with 960 trips (282 inbound and 678 outbound) forecast during the AM peak-hour and 1,192 trips (832 inbound and 360 outbound) forecast during the PM peak-hour.

The AM and PM peak-hour traffic volumes associated with the four cumulative projects are presented in Exhibit 3.16-13 and Exhibit 3.16-14, respectively. Exhibit 3.16-14 also presents the daily cumulative project traffic volumes.

**Table 3.16-8: Location and Description of Cumulative Projects**

<table>
<thead>
<tr>
<th>No.</th>
<th>Cumulative Project</th>
<th>Location/Address</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Salem Lutheran Church Expansion</td>
<td>Southwest corner of Orange Park Boulevard and East Santiago Canyon Road</td>
<td>7,388 TSF church expansion</td>
</tr>
<tr>
<td>2</td>
<td>Arena Site Single-Family Homes</td>
<td>Southeast corner of East Santiago Canyon Road and Nicky Way</td>
<td>7 single-family homes</td>
</tr>
<tr>
<td>3</td>
<td>Santiago Hills II</td>
<td>North and south sides of East Santiago Canyon Road, west of SR-241</td>
<td>1,066 single-family homes 114 condominiums 9.4-acre park</td>
</tr>
<tr>
<td>4</td>
<td>Olson Project</td>
<td>South of Washington Avenue and Hamlin Street</td>
<td>37 townhomes</td>
</tr>
</tbody>
</table>

Exhibit 3.16-5

Project Trip Distribution Pattern

Source: Linscott, Law & Greenspan, Engineers 2017
Exhibit 3.16-6A
AM Peak Hour Project Traffic Volumes (Without Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-6B
AM Peak Hour Project Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-7A
PM Peak Hour Project Traffic Volumes (Without Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-7B

PM Peak Hour Project Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
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Exhibit 3.16-8
With Trip Credit Existing AM Peak Hour Traffic Volumes

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Source: Linscott, Law & Greenspan, Engineers, September 2018.
Exhibit 3.16-9
With Trip Credit Existing PM Peak Hour and Daily Traffic Volumes

Source: Linscott, Law & Greenspan, Engineers, September 2018.
Exhibit 3.16-10A

Existing With Project AM Peak Hour Traffic Volume (Without Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018

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Exhibit 3.16-10B
Existing With Project AM Peak Hour Traffic Volume (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-11A
Existing With Project PM Peak Hour and Daily Traffic Volume
(Without Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-11B

Existing With Project PM Peak Hour and Daily Traffic Volume
(With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-13
AM Peak Hour Cumulative Projects Traffic Volumes

Source: Linscott, Law & Greenspan, Engineers 2017
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Table 3.16-9: Cumulative Projects Traffic Generation Forecast

<table>
<thead>
<tr>
<th>Cumulative Project Description</th>
<th>Daily 2-Way</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Enter</td>
<td>Exit</td>
</tr>
<tr>
<td>1 Salem Lutheran Church Expansion</td>
<td></td>
<td>67</td>
<td>3</td>
</tr>
<tr>
<td>2 Arena Site Single-Family Homes</td>
<td></td>
<td>67</td>
<td>1</td>
</tr>
<tr>
<td>3 Santiago Hills II</td>
<td></td>
<td>11,620</td>
<td>275</td>
</tr>
<tr>
<td>4 Olson Project</td>
<td></td>
<td>215</td>
<td>3</td>
</tr>
<tr>
<td>Cumulative Projects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Trip Generation Potential</td>
<td></td>
<td>11,969</td>
<td>282</td>
</tr>
</tbody>
</table>


Year 2022 Traffic Volumes
Exhibits 3.16-15A and 3.16-16A present the AM and PM peak-hour cumulative traffic volumes “Without Sand and Gravel Credit” (existing traffic + ambient growth traffic + cumulative project traffic) at the 10 key study intersections for the Year 2022, respectively. Exhibit 3.16-16A also presents the Year 2022 daily cumulative traffic volumes “Without Sand and Gravel Credit” for the key roadway segments.

Exhibits 3.16-15B and 3.16-16B present the AM and PM peak-hour cumulative traffic volumes “With Sand and Gravel Credit” (existing traffic + ambient growth traffic + cumulative project traffic) at the 10 key study intersections for the Year 2022, respectively. Exhibit 3.16-16B also presents the Year 2022 daily cumulative traffic volumes “With Sand and Gravel Credit” for the key roadway segments.

Exhibits 3.16-17A and 3.16-18A illustrate the Year 2022 forecast AM and PM peak-hour traffic volumes, with the inclusion of the trips generated by the proposed project “Without Sand and Gravel Credit,” respectively. Exhibit 3.16-18A also presents the Year 2022 With project “Without Sand and Gravel Credit” traffic volumes for the key roadway segments.

Exhibits 3.16-17B and 3.16-18B illustrate the Year 2022 forecast AM and PM peak-hour traffic volumes, with the inclusion of the trips generated by the proposed project “With Sand and Gravel Credit,” respectively. Exhibit 3.16-18B also presents the Year 2022 With Project “With Sand and Gravel Credit” traffic volumes for the key roadway segments.

Year 2040 Buildout Traffic Volumes
As directed by City of Orange staff, Year 2035 buildout traffic volumes for the 10 key study intersections and 17 key roadway segments were obtained from the Santiago Hills II Traffic Study, prepared by Stantec Consulting Services Inc., dated May 6, 2016. Specifically, the “Year 2035 With Proposed SHIIIPC and No EOPC Development” Orange Transportation Analysis Model (OTAM) runs from the Santiago Hills II Traffic Study were utilized, which includes elimination of the Jamboree Road Extension. The Santiago Hills II Traffic Study provided Year 2035 daily, AM peak-hour and PM
peak-hour background traffic volume data for all key study locations, except for the following locations:

1) Cannon Street at Serrano Avenue  
2) Cannon Street at Taft Avenue  
5) Orange Park Boulevard at East Santiago Canyon Road  
6) Meads Avenue at East Santiago Canyon Road  
A) Nicky Way at East Santiago Canyon Road

In order to develop Year 2035 traffic volume forecasts for the aforementioned locations, AM peak-hour and PM peak-hour growth factors were derived by comparing the overall growth between existing traffic volumes and Year 2035 traffic volumes at common locations (i.e., Cannon Street at East Santiago Canyon Road) from the Santiago Hills II Traffic Study. The traffic volume comparisons resulted in a 1.8 percent per year AM peak-hour growth factor and a 2.2 percent per year PM peak-hour growth factor. These growth factors were applied to the With Trip Credit existing traffic volumes for the aforementioned locations to develop Year 2035 AM peak-hour and PM peak-hour background traffic volumes. It should be noted that adjustments were applied as warranted to ensure that through traffic along East Santiago Canyon Road and Cannon Street reasonably tracked between each key study intersection.

After developing all Year 2035 daily, AM peak-hour and PM peak-hour background traffic volumes for the 10 key study intersections and 17 key roadway segments, a 1 percent per year growth factor was applied, as directed by City of Orange staff to develop Year 2040 daily, AM peak-hour, and PM peak-hour background traffic volumes.

Exhibits 3.16-19 and 3.16-20 present the AM and PM peak-hour Year 2040 buildout without project traffic volumes at the 10 key study intersections, respectively. Exhibit 3.16-20 also presents the Year 2040 daily buildout without project traffic volumes for the key roadway segments.

Exhibits 3.16-19A and 3.16-20A illustrate the Year 2040 forecast AM and PM peak-hour traffic volumes, with the inclusion of the trips generated by the proposed project “Without Sand and Gravel Credit,” respectively. Exhibit 3.16-20A also presents the Year 2040 daily with project “Without Sand and Gravel Credit” traffic volumes for the key roadway segments.

Exhibits 3.16-19B and 3.16-20B illustrate the Year 2040 forecast AM and PM peak-hour traffic volumes, with the inclusion of the trips generated by the proposed project “With Sand and Gravel Credit,” respectively. Exhibit 3.16-20B also presents the Year 2040 daily with project “With Sand and Gravel Credit” traffic volumes for the key roadway segments.
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Exhibit 3.16-15B
Year 2022 Without Project AM Peak Hour Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018

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Year 2022 Without Project PM Peak Hour and Daily Traffic Volumes (Without Sand & Gravel Credit)
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Exhibit 3.16-16B

Year 2022 Without Project PM Peak Hour and Daily Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-17A
Year 2022 With Project AM Peak Hour Traffic Volumes (Without Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-17B

Year 2022 With Project AM Peak Hour Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018

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Exhibit 3.16-18A

Year 2022 With Project PM Peak Hour and Daily Traffic Volumes (Without Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-18B
Year 2022 With Project PM Peak Hour and Daily Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Exhibit 3.16-19B
Year 2040 Buildout With Project AM Peak Hour Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018

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27650002 • 08/2018 |3.16-19B_2040_woAMpeak_vols_w_sand_gravel.cdr
Exhibit 3.16-20A
Year 2040 Buildout With Project PM Peak Hour and Daily Traffic Volumes (Without Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
Year 2040 Buildout With Project PM Peak Hour and Daily Traffic Volumes (With Sand & Gravel Credit)

Source: Linscott, Law & Greenspan, Engineers, August 2018
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3.16.4 - Thresholds of Significance

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether transportation and traffic impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

   a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

   b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

   c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

   d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

   e) Result in inadequate emergency access?

   f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

3.16.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Existing With Project Traffic

Impact TRANS-1: The project may conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Existing With Project Traffic Conditions.

Impact Analysis

This impact evaluates Existing With Project traffic conditions.

Intersections

With Trip Credit Existing Traffic Conditions

Table 3.16-10 summarizes the peak-hour level of service results at the 10 key study intersections for With Trip Credit Existing traffic conditions. Column (1) of ICU/LOS values in Table 3.16-10 presents a summary of existing AM and PM peak-hour traffic conditions. Column (2) presents With Trip Credit Existing traffic conditions, which includes trips generated by the existing entitled land use.
Table 3.16-10 indicates that two of the 10 key study intersections are forecast to operate at unacceptable levels of service during the AM and/or PM peak-hours under With Trip Credit Existing traffic conditions. The remaining eight key study intersections are forecast to operate at an acceptable service level during the AM and PM peak-hours.

### Table 3.16-10: With Trip Credit Existing Peak-Hour Intersection Capacity Analysis

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) Existing Traffic Conditions</th>
<th>(2) With Trip Credit Existing Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannon Street at Serrano Avenue</td>
<td>AM PM</td>
<td>D 0.847 0.912</td>
<td>D 0.847 E 0.912</td>
<td>D 0.847 E 0.912</td>
</tr>
<tr>
<td>Cannon Street at Taft Avenue</td>
<td>AM PM</td>
<td>D 0.983 0.869</td>
<td>E 0.983 D 0.869</td>
<td>E 0.983 D 0.869</td>
</tr>
<tr>
<td>Hewes Street at Villa Park Road</td>
<td>AM PM</td>
<td>D 0.742 0.627</td>
<td>C 0.748 B 0.630</td>
<td>C 0.755 B 0.743</td>
</tr>
<tr>
<td>Cannon Street at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D 0.749 0.739</td>
<td>C 0.775 C 0.743</td>
<td>C 0.775 C 0.743</td>
</tr>
<tr>
<td>Orange Park Blvd at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D 0.838 0.881</td>
<td>D 0.841 D 0.883</td>
<td>D 0.841 D 0.883</td>
</tr>
<tr>
<td>Meads Avenue at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D 0.784 0.768</td>
<td>C 0.787 C 0.769</td>
<td>C 0.787 C 0.769</td>
</tr>
<tr>
<td>Newport Blvd at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D 0.767 0.832</td>
<td>C 0.770 D 0.834</td>
<td>C 0.770 D 0.834</td>
</tr>
<tr>
<td>Jamboree Road at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D 0.641 0.647</td>
<td>B 0.644 B 0.648</td>
<td>B 0.644 B 0.648</td>
</tr>
<tr>
<td>Jamboree Road at Chapman Avenue/East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D 0.533 0.845</td>
<td>A 0.535 D 0.848</td>
<td>A 0.535 D 0.848</td>
</tr>
<tr>
<td>Orange Park Boulevard/Chapman Avenue</td>
<td>AM PM</td>
<td>D 0.418 0.530</td>
<td>A 0.418 A 0.530</td>
<td>A 0.418 A 0.530</td>
</tr>
</tbody>
</table>

Note: A significant impact would occur if the project causes ICU to increase by 0.010 or more. Source: Linscott, Law & Greenspan, Engineers, 2017.

### Existing With Project Traffic Conditions

#### Existing With Project Traffic Conditions (Without Sand and Gravel Credit)

Table 3.16-11 summarizes the peak-hour level of service results at the 10 key study intersections and the proposed project driveway for Existing With project “Without Sand and Gravel Credit” traffic conditions. Column (1) of ICU/LOS values in Table 3.16-11 presents a summary of With Trip Credit Existing AM and PM peak-hour traffic conditions. Column (2) lists Existing With Project “Without Sand and Gravel Credit” traffic conditions. Column (3) shows the increase in ICU value due to the added peak-hour project trips and indicates whether the traffic associated with the project “Without
Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA.

Review of Columns (2) and (3) of Table 3.16-11 indicates that traffic associated with the proposed project “Without Sand and Gravel Credit” will not significantly impact any of the 10 key study intersections when compared to the LOS standards and significant impact criteria specified in the TIA. Although the intersections of Cannon Street/Serrano Avenue and Cannon Street/Taft Avenue are forecast to operate at unacceptable LOS E during the AM and/or PM peak-hours with the addition of project traffic, the proposed project “Without Sand and Gravel Credit” is expected to add less than 0.010 to the ICU value. The remaining eight key study intersections and the proposed project driveway are forecast to operate at acceptable levels of service during the AM and PM peak-hours with the addition of project-generated traffic to existing traffic “Without Sand and Gravel Credit.”

Appendix C and D of the Traffic Impact Analysis (Appendix P) presents the Existing With Project ICU/LOS calculations for the 10 key study intersections and the proposed project driveway for the AM peak-hour and PM peak-hour “Without Sand and Gravel Credit.”

**With Trip Credit Existing With Project Traffic Conditions (With Sand and Gravel Credit)**

Table 3.16-12 summarizes the peak-hour level of service results at the 10 key study intersections and the proposed project driveway for Existing With Project “With Sand and Gravel Credit” traffic conditions. Column (1) of ICU/LOS values in Table 3.16-12 presents a summary of With Trip Credit Existing AM and PM peak-hour traffic conditions. Column (2) lists Existing With Project “With Sand and Gravel Credit” traffic conditions. Column (3) shows the increase in ICU value due to the added peak-hour project trips and indicates whether the traffic associated with the project “With Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA.

Review of Columns (2) and (3) of Table 3.16-12 indicates that traffic associated with the proposed project “With Sand and Gravel Credit” will not significantly impact any of the 10 key study intersections when compared to the LOS standards and significant impact criteria specified in the TIA. Although the intersections of Cannon Street/Serrano Avenue and Cannon Street/Taft Avenue are forecast to operate at unacceptable LOS E during the AM and/or PM peak-hours with the addition of project traffic, the proposed project “With Sand and Gravel Credit” is expected to add less than 0.010 to the ICU value. The remaining eight key study intersections and the proposed project driveway are forecast to operate at acceptable levels of service during the AM and PM peak-hours with the addition of project-generated traffic to existing traffic “With Sand and Gravel Credit.”

Appendix C and D of the Traffic Impact Analysis (Appendix P) presents the Existing With Project ICU/LOS calculations for the 10 key study intersections and the proposed project driveway for the AM peak-hour and PM peak-hour “With Sand and Gravel Credit.”
Roadway Segments

With Trip Credit Existing Traffic Conditions

Table 3.16-13 summarizes the roadway segment level of service results at the 17 key roadway segments for With Trip Credit Existing traffic conditions. Column (1) shows the number of lanes, Column (2) shows the arterial classification, and Column (3) shows the existing LOS “E” capacity. Column (4) presents a summary of existing daily traffic conditions. Column (5) lists With Trip Credit Existing daily traffic conditions, which includes trips generated by the existing entitled land use.

Table 3.16-13 indicates that one of the 17 key roadway segments is forecast to operate at an unacceptable level of service under With Trip Credit Existing traffic conditions. Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) is forecast to operate at unacceptable LOS F under With Trip Credit Existing traffic conditions. The remaining 16 key roadway segments are forecast to operate at an acceptable service level under With Trip Credit Existing traffic conditions.

Existing With Project Traffic Conditions

Existing With Project Traffic Conditions (Without Sand and Gravel Credit)

Table 3.16-14 summarizes the roadway segment level of service results at the 17 key roadway segments for Existing With Project “Without Sand and Gravel Credit” traffic conditions. Column (1) shows the number of lanes, Column (2) shows the arterial classification and Column (3) shows the existing LOS “E” capacity. Column (4) presents a summary of Existing daily traffic conditions. Column (5) lists Existing With Project “Without Sand and Gravel Credit” daily traffic conditions. Column (5) also shows the increase in V/C ratio value due to the added daily project trips and indicates whether the traffic associated with the project “Without Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA.

Review of Column (5) of Table 3.16-14 indicates that traffic associated with the proposed project “Without Sand and Gravel Credit” will not significantly impact any of the 17 key roadway segments, when compared to the LOS standards and significant impact criteria specified in the TIA. Although Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) currently operates at unacceptable LOS F under existing conditions, this key roadway segment is forecast to operate at acceptable LOS D with the proposed project “Without Sand and Gravel Credit” (with inclusion of the project-specific improvements). The remaining 16 key roadway segments currently operate and are forecast to continue to operate at an acceptable service level on a daily basis with the addition of project generated traffic to existing traffic “Without Sand and Gravel Credit.”

With Trip Credit Existing With Project Traffic Conditions (With Sand and Gravel Credit)

Table 3.16-15 summarizes the roadway segment level of service results at the 17 key roadway segments for Existing With Project “With Sand and Gravel Credit” traffic conditions. Column (1) shows the number of lanes, Column (2) shows the arterial classification and Column (3) shows the existing LOS “E” capacity. Column (4) presents a summary of With Trip Credit Existing daily traffic conditions. Column (5) lists Existing With Project “With Sand and Gravel Credit” daily traffic conditions. Column (5) also shows the increase in V/C ratio value due to the added daily project trips and indicates whether the traffic associated with the project “With Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA.
Review of Column (5) of Table 3.16-15 indicates that traffic associated with the proposed project “With Sand and Gravel Credit” will not significantly impact any of the 17 key roadway segments, when compared to the LOS standards and significant impact criteria specified in the TIA. Although Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) currently operates at unacceptable LOS F under existing conditions, this key roadway segment is forecast to operate at acceptable LOS D with the proposed project “Without Sand and Gravel Credit” (with inclusion of the project-specific improvements). The remaining 16 key roadway segments currently operate and are forecast to continue to operate at an acceptable service level on a daily basis with the addition of project generated traffic to existing traffic “With Sand and Gravel Credit.”
### Table 3.16-11: Existing With Project Peak-Hour Intersection Capacity Analysis (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) Existing Traffic Conditions</th>
<th>(2) Existing With Project Traffic Conditions</th>
<th>(3) Project Significant Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ICU</td>
<td>LOS</td>
<td>ICU</td>
</tr>
<tr>
<td>1 Cannon Street at Serrano Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.847</td>
<td>D</td>
<td>0.848</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td><strong>0.912</strong></td>
<td><strong>E</strong></td>
<td><strong>0.912</strong></td>
</tr>
<tr>
<td>2 Cannon Street at Taft Avenue</td>
<td>AM</td>
<td>D</td>
<td><strong>0.983</strong></td>
<td><strong>B</strong></td>
<td><strong>0.655</strong></td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.869</td>
<td>D</td>
<td>0.870</td>
</tr>
<tr>
<td>3 Hewes Street at Villa Park Road</td>
<td>AM</td>
<td>D</td>
<td>0.742</td>
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<td>B</td>
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<tr>
<td>4 Cannon Street at East Santiago Canyon Road</td>
<td>AM</td>
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<td>AM</td>
<td>D</td>
<td>0.838</td>
<td>D</td>
<td>0.849</td>
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<td>PM</td>
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<td>0.881</td>
<td>D</td>
<td>0.895</td>
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<tr>
<td>6 Meads Avenue at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.784</td>
<td>C</td>
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<td>0.768</td>
<td>C</td>
<td>0.779</td>
</tr>
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<td>7 Newport Boulevard at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.767</td>
<td>C</td>
<td>0.777</td>
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<td>PM</td>
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<td>D</td>
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<td>B</td>
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<td>PM</td>
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<td>B</td>
<td>0.657</td>
</tr>
<tr>
<td>9 Jamboree Road at Chapman Avenue/East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
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<td>PM</td>
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<td>PM</td>
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<td>A</td>
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<tr>
<td>Key Intersections</td>
<td>Time Period</td>
<td>Minimum Acceptable LOS</td>
<td>(1) Existing Traffic Conditions</td>
<td>(2) Existing With Project Traffic Conditions</td>
<td>(3) Project Significant Impact</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------</td>
<td>------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Project Driveway/Nicky Way at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>ICU 0.791 LOS C</td>
<td>ICU 0.791 LOS C</td>
<td>Yes/No — —</td>
</tr>
<tr>
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<td>PM</td>
<td>—</td>
<td>ICU 0.585 LOS A</td>
<td>ICU 0.585 LOS A</td>
<td>Yes/No — —</td>
</tr>
</tbody>
</table>

Notes:
1. The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed Project:
   Provide a third northbound through-lane.
### Table 3.16-12: With Trip Credit Existing With Project Peak-Hour Intersection Capacity Analysis (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) With Trip Credit Existing Traffic Conditions</th>
<th>(2) Existing With Project Traffic Conditions</th>
<th>(3) Project Significant Impact</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>ICU</td>
<td>LOS</td>
</tr>
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<td>1 Cannon Street at Serrano Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.847</td>
<td>D</td>
<td>0.847</td>
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<tr>
<td></td>
<td></td>
<td>PM</td>
<td></td>
<td>0.912</td>
<td>E</td>
</tr>
<tr>
<td>2 Cannon Street at Taft Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.983</td>
<td>E</td>
<td>0.984</td>
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<tr>
<td></td>
<td></td>
<td>PM</td>
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<td>0.869</td>
<td>D</td>
</tr>
<tr>
<td>3 Hewes Street at Villa Park Road</td>
<td>AM</td>
<td>D</td>
<td>0.748</td>
<td>C</td>
<td>0.748</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td></td>
<td>0.630</td>
<td>B</td>
</tr>
<tr>
<td>4 Cannon Street at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.755</td>
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<td></td>
<td>PM</td>
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<td>D</td>
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<td>C</td>
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<td></td>
<td>PM</td>
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<td>D</td>
</tr>
<tr>
<td>7 Newport Boulevard at East Santiago Canyon Road</td>
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<td>0.770</td>
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<td>0.776</td>
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<td></td>
<td>PM</td>
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<td>0.834</td>
<td>D</td>
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<tr>
<td>8 Jamboree Road at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.644</td>
<td>B</td>
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<td></td>
<td></td>
<td>PM</td>
<td></td>
<td>0.648</td>
<td>A</td>
</tr>
<tr>
<td>9 Jamboree Road at Chapman Avenue/East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.535</td>
<td>A</td>
<td>0.540</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td></td>
<td>0.848</td>
<td>D</td>
</tr>
<tr>
<td>10 Orange Park Boulevard/Chapman Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.418</td>
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<td>0.419</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td></td>
<td>0.530</td>
<td>A</td>
</tr>
<tr>
<td>Project Driveway—Nicky Way/East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>—</td>
<td>—</td>
<td>0.791</td>
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<tr>
<td></td>
<td></td>
<td>PM</td>
<td></td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Notes:
1. The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed project:
   - Provide a third northbound through-lane.
   - A significant impact would occur if the project causes ICU to increase by 0.010 or more.

### Table 3.16-13: With Trip Credit Existing Roadway Segment Level of Service Summary

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Existing Traffic Conditions</th>
<th>(5) With Trip Credit Existing Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Daily Volume</td>
<td>V/C Ratio</td>
<td>LOS</td>
</tr>
<tr>
<td>A Cannon Street north of Serrano Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>20,171</td>
<td>0.538</td>
</tr>
<tr>
<td>B Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>39,787</td>
<td>1.061</td>
</tr>
<tr>
<td>C Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>31,799</td>
<td>0.848</td>
</tr>
<tr>
<td>D Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>8,940</td>
<td>0.238</td>
</tr>
<tr>
<td>E Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>24,423</td>
<td>0.651</td>
</tr>
<tr>
<td>F Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>8,807</td>
<td>0.367</td>
</tr>
<tr>
<td>G East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,118</td>
<td>0.696</td>
</tr>
<tr>
<td>H East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>29,009</td>
<td>0.774</td>
</tr>
<tr>
<td>I East Santiago Canyon Road between Orange Park Boulevard and Meads Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,936</td>
<td>0.718</td>
</tr>
<tr>
<td>J East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,303</td>
<td>0.701</td>
</tr>
<tr>
<td>K East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>20,861</td>
<td>0.371</td>
</tr>
<tr>
<td>L Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>20,820</td>
<td>0.370</td>
</tr>
<tr>
<td>M Jamboree Road south of Chapman Avenue/East Santiago Canyon Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>20,533</td>
<td>0.365</td>
</tr>
<tr>
<td>N East Santiago Canyon Road east of Jamboree Road</td>
<td>4D</td>
<td>Major Arterial</td>
<td>37,500</td>
<td>22,526</td>
<td>0.601</td>
</tr>
</tbody>
</table>
### Table 3.16-13 (cont.): With Trip Credit Existing Roadway Segment Level of Service Summary

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Existing Traffic Conditions</th>
<th>(5) With Trip Credit Existing Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
<td>4D Primary Arterial</td>
<td>37,500</td>
<td>19,482</td>
<td>19,482</td>
</tr>
<tr>
<td>P</td>
<td>Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
<td>4D Primary Arterial</td>
<td>37,500</td>
<td>23,154</td>
<td>23,154</td>
</tr>
<tr>
<td>Q</td>
<td>Orange Park Boulevard between East Santiago Canyon Road and Chapman Avenue</td>
<td>2D Collector</td>
<td>12,000</td>
<td>4,311</td>
<td>4,311</td>
</tr>
</tbody>
</table>

Note:
A significant impact would occur if the project causes V/C to increase by 0.010 or more
### Table 3.16-14: Existing With Project Roadway Segment Level of Service Summary (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Existing Traffic Conditions</th>
<th>(5) Existing With Project Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Cannon Street north of Serrano Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>20,171</td>
<td>0.538</td>
</tr>
<tr>
<td>B Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>39,787</td>
<td>1.061</td>
</tr>
<tr>
<td>C Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>31,799</td>
<td>0.848</td>
</tr>
<tr>
<td>D Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>8,940</td>
<td>0.238</td>
</tr>
<tr>
<td>E Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>24,423</td>
<td>0.651</td>
</tr>
<tr>
<td>F Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>8,807</td>
<td>0.367</td>
</tr>
<tr>
<td>G East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,118</td>
<td>0.696</td>
</tr>
<tr>
<td>H East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>29,009</td>
<td>0.774</td>
</tr>
<tr>
<td>I East Santiago Canyon Road between Orange Park Blvd and Meads Ave</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,936</td>
<td>0.718</td>
</tr>
<tr>
<td>J East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,303</td>
<td>0.701</td>
</tr>
<tr>
<td>K East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>20,861</td>
<td>0.371</td>
</tr>
</tbody>
</table>
Table 3.16-14 (cont.): Existing With Project Roadway Segment Level of Service Summary (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Existing Traffic Conditions</th>
<th>(5) Existing With Project Traffic Conditions</th>
<th>Sign. Imp. (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>20,820</td>
<td>0.370 A</td>
<td>0.010 No</td>
</tr>
<tr>
<td>M Jamboree Road south of Chapman Avenue/East Santiago Canyon Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>20,533</td>
<td>0.365 A</td>
<td>0.003 No</td>
</tr>
<tr>
<td>N East Santiago Canyon Road east of Jamboree Road</td>
<td>4D</td>
<td>Major Arterial</td>
<td>37,500</td>
<td>22,526</td>
<td>0.601 B</td>
<td>0.011 No</td>
</tr>
<tr>
<td>O Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>19,482</td>
<td>0.520 A</td>
<td>0.000 No</td>
</tr>
<tr>
<td>P Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>23,154</td>
<td>0.617 B</td>
<td>0.002 No</td>
</tr>
<tr>
<td>Q Orange Park Boulevard between East Santiago Canyon Road and Chapman Avenue</td>
<td>2D</td>
<td>Collector</td>
<td>12,000</td>
<td>4,311</td>
<td>0.359 A</td>
<td>0.005 No</td>
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</table>

Note:  
1 The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed project: Provide a third northbound through-lane.
Table 3.16-15: With Trip Credit Existing With Project Roadway Segment Level of Service Summary (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS &quot;E&quot;</th>
<th>(4) With Trip Credit Existing Traffic Conditions</th>
<th>(5) With Trip Credit Existing With Project Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Cannon Street north of Serrano Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>20,171</td>
<td>0.538</td>
</tr>
<tr>
<td>B Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td><strong>39,787</strong></td>
<td><strong>1.061</strong></td>
</tr>
<tr>
<td>C Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>31,799</td>
<td>0.848</td>
</tr>
<tr>
<td>D Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>8,940</td>
<td>0.238</td>
</tr>
<tr>
<td>E Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>24,869</td>
<td>0.663</td>
</tr>
<tr>
<td>F Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>8,807</td>
<td>0.367</td>
</tr>
<tr>
<td>G East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,564</td>
<td>0.708</td>
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<tr>
<td>H East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>29,249</td>
<td>0.780</td>
</tr>
<tr>
<td>I East Santiago Canyon Road between Orange Park Boulevard and Meads Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>27,176</td>
<td>0.725</td>
</tr>
<tr>
<td>J East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,543</td>
<td>0.708</td>
</tr>
<tr>
<td>K East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>21,101</td>
<td>0.375</td>
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</table>
Table 3.16-15 (cont.): With Trip Credit Existing With Project Roadway Segment Level of Service Summary (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) With Trip Credit Existing Traffic Conditions</th>
<th>(5) With Project Traffic Conditions</th>
<th>Sign. Imp. (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>21,060</td>
<td>21,300</td>
<td>0.004</td>
</tr>
<tr>
<td>M Jamboree Road south of Chapman Avenue/East Santiago Canyon Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>20,533</td>
<td>20,602</td>
<td>0.001</td>
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<tr>
<td>N East Santiago Canyon Road east of Jamboree Road</td>
<td>4D</td>
<td>Major Arterial</td>
<td>37,500</td>
<td>22,766</td>
<td>22,953</td>
<td>0.005</td>
</tr>
<tr>
<td>O Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>19,482</td>
<td>19,482</td>
<td>0.000</td>
</tr>
<tr>
<td>P Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>23,154</td>
<td>23,181</td>
<td>0.001</td>
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<tr>
<td>Q Orange Park Boulevard between East Santiago Canyon Road and Chapman Avenue</td>
<td>2D</td>
<td>Collector</td>
<td>12,000</td>
<td>4,311</td>
<td>4,338</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Note:
1 The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed project:
   Provide a third northbound through-lane.
   A significant impact would occur if the project causes V/C to increase by 0.010 or more.
Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Year 2022 Traffic

Impact TRANS-2: The project may conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Year 2022 Traffic Conditions.

Impact Analysis
This impact evaluates Year 2022 Traffic Conditions.

Intersections
Table 3.16-16 summarizes the peak-hour level of service results at the 10 key study intersections and the proposed project driveway for Year 2022 traffic conditions “Without Sand and Gravel Credit.” Column (1) of ICU/LOS values in Table 3.16-16 presents a summary of Existing AM and PM peak-hour traffic conditions. Column (2) lists projected cumulative traffic conditions (existing plus ambient traffic plus cumulative project traffic) based on existing intersection geometry, but without any traffic generated from the proposed project. Column (3) presents forecast Year 2022 near-term traffic conditions with the addition of project traffic “Without Sand and Gravel Credit.” Column (4) shows the increase in ICU value due to the added peak-hour project trips and indicates whether the traffic associated with the project “Without Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA. Column (5) presents the resultant level of service with the inclusion of recommended traffic improvements, where needed, to achieve an acceptable level of service.

Table 3.16-17 summarizes the peak-hour level of service results at the 10 key study intersections and the proposed project driveway for Year 2022 traffic conditions “With Sand and Gravel Credit.” Column (1) of ICU/LOS values in Table 3.16-17 presents a summary of With Trip Credit Existing AM and PM peak-hour traffic conditions. Column (2) lists projected cumulative traffic conditions (existing plus ambient traffic plus cumulative project traffic) based on existing intersection geometry, but without any traffic generated from the proposed project. Column (3) presents forecast Year 2022 near-term traffic conditions with the addition of project traffic “With Sand and Gravel Credit.” Column (4) shows the increase in ICU value due to the added peak-hour project trips and indicates whether the traffic associated with the project “With Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA. Column (5) presents the resultant level of service with the inclusion of recommended traffic improvements, where needed, to achieve an acceptable level of service.
Year 2022 Without Project Traffic Conditions

Year 2022 Without Project Traffic Conditions (Without Sand and Gravel Credit)
An analysis of future (Year 2022) cumulative traffic conditions “Without Sand and Gravel Credit” indicates that the addition of ambient traffic growth and cumulative project traffic will adversely impact three of the 10 key study intersections. The remaining seven key study intersections are forecast to continue to operate at acceptable levels of service during the AM and PM peak-hours with the addition of ambient traffic growth and cumulative project traffic. The locations projected to operate at an adverse LOS are shown in Rows 1, 2, and 5 of Table 3.16-16.

It should be noted that the intersection of Jamboree Road at Chapman Avenue/East Santiago Canyon Road will be improved to include a second westbound right turn lane in conjunction with the proposed Santiago Hills II Project.

Year 2022 Without Project Traffic Conditions (With Sand and Gravel Credit)
An analysis of future (Year 2022) cumulative traffic conditions “With Sand and Gravel Credit” indicates that the addition of ambient traffic growth and cumulative project traffic will adversely impact three of the 10 key study intersections. The remaining seven key study intersections are forecast to continue to operate at acceptable levels of service during the AM and PM peak-hours with the addition of ambient traffic growth and cumulative project traffic. The locations projected to operate at an adverse LOS are shown in Rows 1, 2, and 5 of Table 3.16-17.

It should be noted that the intersection of Jamboree Road at Chapman Avenue/East Santiago Canyon Road will be improved to include a second westbound right turn lane in conjunction with the proposed Santiago Hills II Project.

Year 2022 With Project Traffic Conditions

Year 2022 With Project Traffic Conditions (Without Sand and Gravel Credit)
Review of Columns (3) and (4) of Table 3.16-16 indicates that traffic associated with the proposed project “Without Sand and Gravel Credit” will significantly impact one of the 10 key study intersections, when compared to the LOS standards and significant impact criteria specified in the TIA. Although the intersections of Cannon Street/Serrano Avenue and Cannon Street/Taft Avenue are forecast to operate at unacceptable LOS E or LOS F during the AM and/or PM peak-hours with the addition of project traffic, the proposed project “Without Sand and Gravel Credit” is expected to add less than 0.010 to the ICU value. The remaining seven key study intersections and the proposed project driveway are forecast to continue to operate at an acceptable LOS with the addition of project generated traffic in the Year 2022 “Without Sand and Gravel Credit.” The location significantly impacted by the proposed project in the Year 2022 is as shown in Row 5 of Table 3.16-16.

As shown in Column (5), the implementation of improvements at the impacted key study intersections completely offsets the impact of project traffic “Without Sand and Gravel Credit” and the key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak-hours. Appendix C and D presents the Year 2022 With Project ICU/LOS calculations for the 10 key study intersections and the proposed project driveway “Without Sand and Gravel Credit.”
Year 2022 With Project Traffic Conditions (With Sand and Gravel Credit)

Review of Columns (3) and (4) of Table 3.16-17 indicates that traffic associated with the proposed project “With Sand and Gravel Credit” will significantly impact one of the 10 key study intersections, when compared to the LOS standards and significant impact criteria specified in the TIA. Although the intersections of Cannon Street/Serrano Avenue and Cannon Street/Taft Avenue are forecast to operate at unacceptable LOS E or LOS F during the AM and/or PM peak-hours with the addition of project traffic, the proposed project “With Sand and Gravel Credit” is expected to add less than 0.010 to the ICU value. The remaining seven key study intersections and the proposed project driveway are forecast to continue to operate at an acceptable LOS with the addition of project generated traffic in the Year 2022 “With Sand and Gravel Credit.” The location significantly impacted by the proposed project in the Year 2022 is as shown in Row 5 of Table 3.16-17.

As shown in Column (5), the implementation of improvements at the impacted key study intersections completely offsets the impact of project traffic “With Sand and Gravel Credit” and the key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak-hours. Appendix C and D presents the Year 2022 With Project ICU/LOS calculations for the ten key study intersections and the proposed project driveway “With Sand and Gravel Credit.”

Roadway Segments

Table 3.16-18 summarizes the roadway segment level of service results at the 17 key roadway segments for Year 2022 traffic conditions “Without Sand and Gravel Credit.” Column (1) shows the number of lanes, Column (2) shows the arterial classification, and Column (3) shows the existing LOS “E” capacity. Column (4) presents a summary of projected Year 2022 cumulative daily traffic conditions. Column (5) lists Year 2022 With Project daily traffic conditions. Column (5) also shows the increase in V/C ratio value due to the added daily project trips and indicates whether the traffic associated with the project “Without Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA.

Table 3.16-19 summarizes the roadway segment level of service results at the 17 key roadway segments for Year 2022 traffic conditions “With Sand and Gravel Credit.” Column (1) shows the number of lanes, Column (2) shows the arterial classification, and Column (3) shows the existing LOS “E” capacity. Column (4) presents a summary of projected Year 2022 cumulative daily traffic conditions. Column (5) lists Year 2022 With Project daily traffic conditions. Column (5) also shows the increase in V/C ratio value due to the added daily project trips and indicates whether the traffic associated with the project “With Sand and Gravel Credit” will have a significant impact based on the LOS standards and significant impact criteria defined in the TIA.

Year 2022 Without Project Traffic Conditions

Year 2022 Without Project Traffic Conditions (Without Sand and Gravel Credit)

An analysis of future (Year 2022) cumulative traffic conditions “Without Sand and Gravel Credit” indicates that with the addition of ambient traffic growth and cumulative project traffic, two of the 17 key roadway segments are forecast to operate at unacceptable levels of service. Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) and Roadway Segment C (Cannon Street between Taft Avenue and East Santiago Canyon Road) are forecast to operate at
unacceptable LOS E and/or LOS F on a daily basis in the Year 2022. The remaining 15 key roadway segments are forecast to continue to operate at acceptable levels of service on a daily basis with the addition of ambient traffic growth and cumulative project traffic “Without Sand and Gravel Credit.”

Year 2022 Without Project Traffic Conditions (With Sand and Gravel Credit)

An analysis of future (Year 2022) cumulative traffic conditions “With Sand and Gravel Credit” indicates that with the addition of ambient traffic growth and cumulative project traffic, two of the 17 key roadway segments are forecast to operate at unacceptable levels of service. Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) and Roadway Segment C (Cannon Street between Taft Avenue and East Santiago Canyon Road) are forecast to operate at unacceptable LOS E and/or LOS F on a daily basis in the Year 2022. The remaining 15 key roadway segments are forecast to continue to operate at acceptable levels of service on a daily basis with the addition of ambient traffic growth and cumulative project traffic “Without Sand and Gravel Credit.”

Year 2022 With Project Traffic Conditions

Year 2022 With Project Traffic Conditions (Without Sand and Gravel Credit)

Review of Column (5) of Table 3.16-18 indicates that traffic associated with the proposed project “Without Sand and Gravel Credit” will not significantly impact any of the 17 key roadway segments, when compared to the LOS standards and significant impact criteria specified in the TIA. Although Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) is forecast to operate at unacceptable LOS F on a daily basis in the Year 2022 without project traffic, the level of service for this key roadway segment improves to LOS E with the proposed project “Without Sand and Gravel Credit” (with inclusion of the project-specific improvements). Although Roadway Segment C (Cannon Street between Taft Avenue and East Santiago Canyon Road) is forecast to operate at unacceptable LOS E on a daily basis in the Year 2022 without project traffic, this key roadway segment is forecast to operate at acceptable LOS C with the proposed project “Without Sand and Gravel Credit” (with inclusion of the project-specific improvements). The remaining 15 key roadway segments are forecast to continue to operate at an acceptable service level on a daily basis with the addition of project generated traffic in the Year 2022 traffic condition “Without Sand and Gravel Credit.”

Year 2022 With Project Traffic Conditions (With Sand and Gravel Credit)

Review of Column (5) of Table 3.16-19 indicates that traffic associated with the proposed project “With Sand and Gravel Credit” will not significantly impact any of the 17 key roadway segments, when compared to the LOS standards and significant impact criteria specified in the TIA. Although Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) is forecast to operate at unacceptable LOS F on a daily basis in the Year 2022 without project traffic, the level of service for this key roadway segment improves to LOS E with the proposed project “With Sand and Gravel Credit” (with inclusion of the project-specific improvements). Although Roadway Segment C (Cannon Street between Taft Avenue and East Santiago Canyon Road) is forecast to operate at unacceptable LOS E on a daily basis in the Year 2022 without project traffic, this key roadway segment is forecast to operate at acceptable LOS C with the proposed project “With Sand and Gravel Credit” (with inclusion of the project-specific improvements). The remaining 15 key roadway segments are forecast to continue to operate at an acceptable service level on a daily basis with the addition of project generated traffic in the Year 2022 traffic condition “With Sand and Gravel Credit.”
<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) Existing Traffic Conditions</th>
<th>(2) Year 2022 Without Project Traffic Conditions</th>
<th>(3) Year 2022 With Project Traffic Conditions</th>
<th>(4) Project Significant Impact</th>
<th>(5) Year 2022 With Project With Mitigation</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
<td>ICU</td>
<td>LOS</td>
<td>ICU</td>
<td>LOS</td>
<td>ICU</td>
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<tr>
<td>1 Cannon Street at Serrano Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.847</td>
<td>D</td>
<td>0.891</td>
<td>D</td>
<td>0.891</td>
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<td>0.912</td>
<td>E</td>
<td>0.955</td>
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<td>0.955</td>
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<tr>
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<td>AM</td>
<td>D</td>
<td>0.983</td>
<td>E</td>
<td>1.034</td>
<td>F</td>
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<td>PM</td>
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<td>D</td>
<td>0.914</td>
<td>E</td>
<td>0.688</td>
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<td>3 Hewes Street at Villa Park Road</td>
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<td>B</td>
<td>0.677</td>
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<td>0.684</td>
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<td>4 Cannon Street at East Santiago Canyon Road</td>
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<td>0.749</td>
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<td>C</td>
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<td>B</td>
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<td>B</td>
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<td>PM</td>
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</table>
Table 3.16-16 (cont.): Year 2022 Peak-Hour Intersection Capacity Analysis (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) Existing Traffic Conditions</th>
<th>(2) Year 2022 Without Project Traffic Conditions</th>
<th>(3) Year 2022 With Project Traffic Conditions</th>
<th>(4) Project Significant Impact</th>
<th>(5) Year 2022 With Project Mitigation</th>
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<td>ICU</td>
<td>LOS</td>
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<td>Project Driveway/Nicky Way at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
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<td>—</td>
<td>0.623</td>
</tr>
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</table>

Note:
1. The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed project:
   Provide a third northbound through-lane.
Table 3.16-17: Year 2022 Peak-Hour Intersection Capacity Analysis (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) With Trip Credit Existing Traffic Conditions</th>
<th>(2) Year 2022 Without Project Traffic Conditions</th>
<th>(3) Year 2022 With Project Traffic Conditions</th>
<th>(4) Project Significant Impact</th>
<th>(5) Year 2022 With Project With Mitigation</th>
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<td>ICU</td>
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<td>ICU</td>
<td>LOS</td>
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</tr>
<tr>
<td>1 Cannon Street at Serrano Avenue</td>
<td>AM PM</td>
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<td>0.847</td>
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<td><strong>E</strong></td>
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<td><strong>0.955</strong></td>
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<td>2 Cannon Street at Taft Avenue</td>
<td>AM PM</td>
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<td>0.983</td>
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<td>D</td>
<td>0.914</td>
<td>E</td>
<td><strong>0.688</strong></td>
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<tr>
<td>3 Hewes Street at Villa Park Road</td>
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<td>0.748</td>
<td>C</td>
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<td></td>
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<td>0.630</td>
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<td>AM PM</td>
<td>D</td>
<td>0.755</td>
<td>C</td>
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<td>0.792</td>
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<td>0.797</td>
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<td>C</td>
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<td>0.826</td>
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<td>7 Newport Boulevard at East Santiago Canyon Road</td>
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<td>0.885</td>
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<td>8 Jamboree Road at East Santiago Canyon Road</td>
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<td>D</td>
<td>0.644</td>
<td>B</td>
<td>0.683</td>
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<td>0.648</td>
<td>B</td>
<td>0.691</td>
<td>B</td>
<td>0.700</td>
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<tr>
<td>9 Jamboree Road at Chapman Avenue/East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.535</td>
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<td><strong>0.590</strong></td>
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<td>0.848</td>
<td>D</td>
<td><strong>0.771</strong></td>
<td><strong>C</strong></td>
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<td>10 Orange Park Boulevard/Chapman Avenue</td>
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</tr>
<tr>
<td>— Project Driveway—Nicky Way/East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.836</td>
</tr>
</tbody>
</table>

Note:
1. The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed project:
   - Provide a third northbound through-lane.
   - A significant impact would occur if the project causes ICU to increase by 0.010 or more.

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Year 2022 Without Project Traffic Conditions</th>
<th>(5) Year 2022 With Project Traffic Conditions</th>
<th>Sign. Imp. (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Cannon Street north of Serrano Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>21,698 0.579 A</td>
<td>21,820 0.582 A</td>
<td>0.003 No</td>
</tr>
<tr>
<td>B Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>42,297 1.128 F</td>
<td>42,455 0.906 E</td>
<td>0.000 No</td>
</tr>
<tr>
<td>C Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>33,917 0.904 E</td>
<td>34,100 0.727 C</td>
<td>0.000 No</td>
</tr>
<tr>
<td>D Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>9,394 0.251 A</td>
<td>9,479 0.253 A</td>
<td>0.002 No</td>
</tr>
<tr>
<td>E Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,560 0.708 C</td>
<td>26,840 0.716 C</td>
<td>0.008 No</td>
</tr>
<tr>
<td>F Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>9,372 0.391 A</td>
<td>9,396 0.392 A</td>
<td>0.001 No</td>
</tr>
<tr>
<td>G East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>28,335 0.756 C</td>
<td>28,640 0.764 C</td>
<td>0.008 No</td>
</tr>
<tr>
<td>H East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>31,806 0.848 D</td>
<td>32,452 0.865 D</td>
<td>0.017 No</td>
</tr>
<tr>
<td>I East Santiago Canyon Road between Orange Park Boulevard and Meads Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>29,578 0.789 C</td>
<td>30,163 0.804 D</td>
<td>0.015 No</td>
</tr>
<tr>
<td>J East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>28,913 0.771 C</td>
<td>29,498 0.787 C</td>
<td>0.016 No</td>
</tr>
</tbody>
</table>
### Table 3.16-18 (cont.): Year 2022 Roadway Segment Level of Service Summary (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Year 2022 Without Project Traffic Conditions</th>
<th>(5) Year 2022 With Project Traffic Conditions</th>
<th>Sign. Imp. (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>23,199</td>
<td>0.412 A</td>
<td>0.010 No</td>
</tr>
<tr>
<td>L Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>23,156</td>
<td>0.411 A</td>
<td>0.010 No</td>
</tr>
<tr>
<td>M Jamboree Road south of Chapman Avenue/East Santiago Canyon Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>21,562</td>
<td>0.383 A</td>
<td>0.003 No</td>
</tr>
<tr>
<td>N East Santiago Canyon Road east of Jamboree Road</td>
<td>4D</td>
<td>Major Arterial</td>
<td>37,500</td>
<td>29,288</td>
<td>0.781 C</td>
<td>0.011 No</td>
</tr>
<tr>
<td>O Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>22,711</td>
<td>0.606 B</td>
<td>0.000 No</td>
</tr>
<tr>
<td>P Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>26,806</td>
<td>0.715 C</td>
<td>0.001 No</td>
</tr>
<tr>
<td>Q Orange Park Boulevard between East Santiago Canyon Road and Chapman Avenue</td>
<td>2D</td>
<td>Collector</td>
<td>12,000</td>
<td>4,774</td>
<td>0.398 A</td>
<td>0.005 No</td>
</tr>
</tbody>
</table>

Note:
1. The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed project:
   Provide a third northbound through-lane.
Table 3.16-19: Year 2022 Roadway Segment Level of Service Summary (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Year 2022 Without Project Traffic Conditions</th>
<th>(5) Year 2022 With Project Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Cannon Street north of Serrano Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>21,698</td>
<td>0.579</td>
</tr>
<tr>
<td>B Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>4D</td>
<td>Primary Arterial 4D Primary Arterial</td>
<td>37,500</td>
<td>42,297</td>
<td>1.128</td>
</tr>
<tr>
<td>C Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>33,917</td>
<td>0.904</td>
</tr>
<tr>
<td>D Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>9,394</td>
<td>0.251</td>
</tr>
<tr>
<td>E Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>27,028</td>
<td>0.721</td>
</tr>
<tr>
<td>F Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>9,372</td>
<td>0.391</td>
</tr>
<tr>
<td>G East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>28,803</td>
<td>0.768</td>
</tr>
<tr>
<td>H East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>32,058</td>
<td>0.855</td>
</tr>
<tr>
<td>I East Santiago Canyon Road between Orange Park Boulevard and Meads Avenue</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>29,830</td>
<td>0.795</td>
</tr>
<tr>
<td>J East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>29,165</td>
<td>0.778</td>
</tr>
<tr>
<td>K East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>23,451</td>
<td>0.417</td>
</tr>
</tbody>
</table>
### Table 3.16-19 (cont.): Year 2022 Roadway Segment Level of Service Summary (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Existing Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Existing Capacity at LOS “E”</th>
<th>(4) Year 2022 Without Project Traffic Conditions</th>
<th>(5) Year 2022 With Project Traffic Conditions</th>
<th>Incr.</th>
<th>Sign. Imp. (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
<td>6D Major Arterial</td>
<td>56,300 Daily Volume 23,408 V/C Ratio 0.416 LOS A</td>
<td>42,366 1.130 F 0.002 No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M Jamboree Road south of Chapman Avenue/East Santiago Canyon Road</td>
<td>6D Major Arterial</td>
<td>56,300 Daily Volume 21,562 V/C Ratio 0.383 LOS A</td>
<td>33,997 0.907 E 0.003 No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N East Santiago Canyon Road east of Jamboree Road</td>
<td>4D Major Arterial</td>
<td>37,500 Daily Volume 29,540 V/C Ratio 0.788 LOS C</td>
<td>21,751 0.580 A 0.001 No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
<td>4D Primary Arterial</td>
<td>37,500 Daily Volume 22,711 V/C Ratio 0.606 LOS B</td>
<td>22,711 0.606 B 0.000 No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
<td>4D Primary Arterial</td>
<td>37,500 Daily Volume 26,806 V/C Ratio 0.715 LOS C</td>
<td>26,833 0.716 C 0.001 No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q Orange Park Boulevard between East Santiago Canyon Road and Chapman Avenue</td>
<td>2D Collector</td>
<td>12,000 Daily Volume 4,774 V/C Ratio 0.398 LOS A</td>
<td>4,801 0.400 A 0.002 No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:

1 The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed project:
   - Provide a third northbound through-lane.
   - A significant impact would occur if the project causes V/C to increase by 0.010 or more.

To mitigate the proposed project’s impacts at Orange Park Boulevard/East Santiago Canyon Road, Mitigation Measure TRANS-2 would require improvements to each intersection. The improvements are depicted in Exhibit 3.16-21. Because the project contributes to pre-existing deficient conditions, it is only required to mitigate for its fair share of the impact. The fair share calculations are summarized in Table 3.16-20.

Table 3.16-20: Year 2022 Project Fair Share Contribution

<table>
<thead>
<tr>
<th>Key Intersection</th>
<th>Project Time</th>
<th>Project Only Volume</th>
<th>Existing Volume</th>
<th>Year 2022 With Project Volume</th>
<th>Project Fair Share Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange Park Boulevard at East Santiago Canyon Road</td>
<td>AM</td>
<td>—</td>
<td>68</td>
<td>3,436</td>
<td>3,810</td>
</tr>
<tr>
<td>(Without Sand and Gravel Credit)</td>
<td>PM</td>
<td>—</td>
<td>3,436</td>
<td>—</td>
<td>18.2 percent</td>
</tr>
<tr>
<td>Orange Park Boulevard at East Santiago Canyon Road</td>
<td>AM</td>
<td>—</td>
<td>51</td>
<td>3,447</td>
<td>3,805</td>
</tr>
<tr>
<td>(With Sand and Gravel Credit)</td>
<td>PM</td>
<td>—</td>
<td>3,447</td>
<td>—</td>
<td>14.2 percent</td>
</tr>
</tbody>
</table>

Notes:
Net Project Percent Increase (4) = Column (1)/[Column (3)–Column (2)]
**Bold Project Fair Share Responsibility** is based on worst-case scenario.

Despite the fair share contribution provided through Mitigation Measure TRANS-2 mitigating the proposed project’s impacts at Orange Park Boulevard/East Santiago Canyon Road, impacts would be significant and unavoidable as the Orange Park Boulevard/East Santiago Canyon Road intersection is not listed in the City of Orange MPAH, or any similar plans.

**Level of Significance Before Mitigation**
Potentially significant impact.

**Mitigation Measures**
**MM TRANS-2** Prior to issuance of building permits, the project Applicant shall provide the City of Orange with fair share fees to restripe the northbound approach of Orange Park Boulevard at East Santiago Canyon Road to provide one exclusive left-turn lane and one shared left-turn/right-turn lane. The Applicant’s fair share responsibility for these improvements is 18.2 percent.

**Level of Significance After Mitigation**
Significant and unavoidable impact.
Exhibit 3.16-21
Year 2022 Planned and Recommended Improvements

Source: Linscott, Law & Greenspan, Engineers, September 2018.
Year 2040 Traffic

Impact TRANS-3: The project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Year 2040 Traffic Conditions.

Impact Analysis

The following summarizes the “Year 2040 Buildout With Project” level of service results for the 10 key study intersections and 17 key roadway segments for the “Without Sand and Gravel Credit” and “With Sand and Gravel Credit” baseline traffic conditions. Consistent with the Santiago Hills II Traffic Study, prepared by Stantec Consulting Services Inc., the level of service results for the key study intersections and key roadway segments include improvements planned by the City of Orange. In addition, the circulation network utilized in the Year 2040 analysis reflects the buildout of the City of Orange Master Plan of Arterial Highways (MPAH) that was approved as part of the 2010 City of Orange General Plan Update.

Planned Improvements

The following improvements are included in the Year 2040 Buildout traffic analysis and reflect the City’s MPAH. It should be noted that the improvements listed below are consistent with those contained in the Santiago Hills II Traffic Study, prepared by Stantec Consulting Services Inc., dated May 6, 2016. Exhibit 3.16-22 depicts planned improvements to the roadway network.

- Cannon Street at Serrano Avenue: Widen and/or restripe Cannon Street to provide a third southbound through lane.
- Cannon Street at Taft Avenue: Widen and/or restripe Cannon Street to provide a third southbound through lane.
- Cannon Street at East Santiago Canyon Road: Widen and/or restripe Cannon Street to provide a second northbound left-turn lane. Widen and/or restripe the southbound approach of Cannon Street to provide three southbound left-turn lanes, three southbound through lanes and a southbound free right-turn lane. Widen and/or restripe East Santiago Canyon Road to provide a third eastbound through lane and an exclusive eastbound right-turn lane. Widen and/or restripe East Santiago Canyon Road to provide a second westbound left-turn lane and a third westbound through lane.
- Orange Park Boulevard at East Santiago Canyon Road: Widen and/or restripe East Santiago Canyon Road to provide a third eastbound through lane and a third westbound through lane.
- Meads Avenue at East Santiago Canyon Road: Widen and/or restripe East Santiago Canyon Road to provide a third eastbound through lane and a third westbound through lane. Newport Boulevard at East Santiago Canyon Road: Widen and/or restripe East Santiago Canyon Road to provide a third eastbound through lane and a third westbound through lane.
- Jamboree Road at Chapman Avenue/East Santiago Canyon Road: Widen and/or restripe East Santiago Canyon Road to provide a second westbound right-turn lane.
Project Driveway/Nicky Way at East Santiago Canyon Road: Widen and/or restripe East Santiago Canyon Road to provide a third eastbound through lane.

Intersections
Table 3.16-21 summarizes the peak-hour level of service results at the 10 key study intersections and the proposed project driveway for Year 2040 Buildout traffic conditions “Without Sand and Gravel Credit.” The structure of this table is similar to the near-term (Year 2022) capacity analysis summary presented in Table 3.16-16.

Table 3.16-22 summarizes the peak-hour level of service results at the 10 key study intersections and the proposed Project driveway for Year 2040 Buildout traffic conditions “With Sand and Gravel Credit.” The structure of this table is similar to the near-term (Year 2022) capacity analysis summary presented in Table 3.16-17.

Year 2040 Buildout Without Project Traffic Conditions
Review of Column (2) of Table 3.16-21 and Table 3.16-22 shows that projected Year 2040 buildout without project traffic will adversely impact two of the 10 key study intersections. The remaining eight key study intersections are forecast to operate at an acceptable LOS under Year 2040 buildout without project traffic conditions. The locations projected to operate at an adverse LOS are shown in Rows 1 and 9 of Table 3.16-22.

Year 2040 Buildout With Project Traffic Conditions
Year 2040 Buildout With Project Traffic Conditions (Without Sand and Gravel Operation)
Review of Columns (3) and (4) of Table 3.16-21 indicates that traffic associated with the proposed project “Without Sand and Gravel Credit” will not significantly impact any of the 10 key study intersections when compared to the LOS standards and significant impact criteria specified in the TIA. Although the intersections of Cannon Street/Serrano Avenue and Jamboree Road/Chapman Avenue-East Santiago Canyon Road are forecast to operate at unacceptable LOS E and/or LOS F during the AM and/or PM peak-hours with and without the addition of project traffic, the proposed project “Without Sand and Gravel Credit” is expected to add less than 0.010 to the ICU value. The remaining eight key study intersections and the proposed project driveway are forecast to continue to operate at an acceptable LOS with the addition of project generated traffic in the Year 2040 “Without Sand and Gravel Credit.”

Appendix C and D of the Traffic Impact Analysis (Appendix P) presents the Year 2040 Buildout ICU/LOS calculations for the 10 key study intersections and the proposed project driveway “Without Sand and Gravel Credit.”
Exhibit 3.16-22
Year 2040 Planned Improvements

Source: Linscott, Law & Greenspan, Engineers, September 2018.
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Year 2040 Buildout With Project Traffic Conditions (With Sand and Gravel Operation)

Review of Columns (3) and (4) of Table 3.16-22 indicates that traffic associated with the proposed project “With Sand and Gravel Credit” will not significantly impact any of the 10 key study intersections when compared to the LOS standards and significant impact criteria specified in the TIA. Although the intersections of Cannon Street/Serrano Avenue and Jamboree Road/Chapman Avenue-East Santiago Canyon Road are forecast to operate at unacceptable LOS E and/or LOS F during the AM and/or PM peak-hours with and without the addition of project traffic, the proposed project “With Sand and Gravel Credit” is expected to add less than 0.010 to the ICU value. The remaining eight key study intersections and the proposed project driveway are forecast to continue to operate at an acceptable LOS with the addition of project generated traffic in the Year 2040 “With Sand and Gravel Credit.”

Appendix C and D of the Traffic Impact Analysis (Appendix P) presents the Year 2040 Buildout ICU/LOS calculations for the 10 key study intersections and the proposed project driveway “With Sand and Gravel Credit.”

Roadway Segments

Table 3.16-23 summarizes the roadway segment level of service results at the 17 key roadway segments for Year 2040 traffic conditions “Without Sand and Gravel Credit.” The structure of this table is similar to the Year 2022 daily capacity analysis summary presented in Table 3.16-18.

Table 3.16-24 summarizes the roadway segment level of service results at the 17 key roadway segments for Year 2040 traffic conditions “With Sand and Gravel Credit.” The structure of this table is similar to the Year 2022 daily capacity analysis summary presented in Table 3.16-19.

Year 2040 Buildout Without Project Traffic Conditions

An analysis of future (Year 2040) buildout traffic conditions indicates that two of the 17 key roadway segments are forecast to operate at unacceptable levels of service. Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) and Roadway Segment E (Villa Park Road west of Hewes Street) are forecast to operate at unacceptable LOS E and/or LOS F in the Year 2040. The remaining 15 key roadway segments are forecast to continue to operate at acceptable levels of service in the Year 2040.

Year 2040 With Project Traffic Conditions

Year 2040 With Project Traffic Conditions (Without Sand and Gravel Credit)

Review of Column (5) of Table 3.16-23 indicates that traffic associated with the proposed project “Without Sand and Gravel Credit” will not significantly impact any of the 17 key roadway segments, when compared to the LOS standards and significant impact criteria specified in the TIA. Although Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) and Roadway Segment E (Villa Park Road west of Hewes Street) are forecast to operate at unacceptable LOS E and/or LOS F on a daily basis in the Year 2040 with and without the addition of project traffic, the proposed project “Without Sand and Gravel Credit” is expected to add less than 0.010 to the V/C ratio. The remaining 15 key roadway segments are forecast to continue to operate at an acceptable
service level on a daily basis with the addition of project generated traffic in the Year 2040 traffic condition “Without Sand and Gravel Credit.”

**Year 2040 With Project Traffic Conditions (With Sand and Gravel Credit)**

Review of Column (5) of Table 3.16-24 indicates that traffic associated with the proposed project “With Sand and Gravel Credit” will not significantly impact any of the 17 key roadway segments, when compared to the LOS standards and significant impact criteria specified in the TIA. Although Roadway Segment B (Cannon Street between Serrano Avenue and Taft Avenue) and Roadway Segment E (Villa Park Road west of Hewes Street) are forecast to operate at unacceptable LOS E and/or LOS F on a daily basis in the Year 2040 with and without the addition of project traffic, the proposed project “With Sand and Gravel Credit” is expected to add less than 0.010 to the V/C ratio. The remaining 15 key roadway segments are forecast to continue to operate at an acceptable service level on a daily basis with the addition of project generated traffic in the Year 2040 traffic condition “With Sand and Gravel Credit.”
### Table 3.16-21: Year 2040 Buildout Peak-Hour Intersection Capacity Analysis (Without Sand and Gravel)

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) Year 2040 Buildout Without Project Traffic Conditions</th>
<th>(2) Year 2040 Buildout With Project Traffic Conditions</th>
<th>(3) Year 2040 Buildout With Project Traffic Conditions</th>
<th>(4) Project Significant Impact</th>
<th>(5) Year 2040 Buildout With Project Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cannon Street at Serrano Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.847 D</td>
<td>0.960 E</td>
<td>0.962 E</td>
<td>0.002</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.912 E</td>
<td>1.314 F</td>
<td>1.314 F</td>
<td>0.000</td>
<td>No</td>
</tr>
<tr>
<td>2 Cannon Street at Taft Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.983 E</td>
<td>0.872 D</td>
<td>0.873 D</td>
<td>0.001</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.869 D</td>
<td>0.879 D</td>
<td>0.881 D</td>
<td>0.002</td>
<td>No</td>
</tr>
<tr>
<td>3 Hewes Street at Villa Park Road</td>
<td>AM</td>
<td>D</td>
<td>0.742 C</td>
<td>0.634 B</td>
<td>0.637 B</td>
<td>0.003</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.627 B</td>
<td>0.826 D</td>
<td>0.833 D</td>
<td>0.007</td>
<td>No</td>
</tr>
<tr>
<td>4 Cannon Street at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.749 C</td>
<td>0.832 D</td>
<td>0.837 D</td>
<td>0.005</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.739 C</td>
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</tr>
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<td>AM</td>
<td>D</td>
<td>0.838 D</td>
<td>0.790 C</td>
<td>0.798 C</td>
<td>0.008</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.881 D</td>
<td>0.755 C</td>
<td>0.762 C</td>
<td>0.007</td>
<td>No</td>
</tr>
<tr>
<td>6 Meads Avenue at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
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<td>0.630 B</td>
<td>0.633 B</td>
<td>0.003</td>
<td>No</td>
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<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.768 C</td>
<td>0.638 B</td>
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<td>0.008</td>
<td>No</td>
</tr>
<tr>
<td>7 Newport Boulevard at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.767 C</td>
<td>0.880 D</td>
<td>0.888 D</td>
<td>0.008</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.832 D</td>
<td>0.845 D</td>
<td>0.853 D</td>
<td>0.008</td>
<td>No</td>
</tr>
<tr>
<td>8 Jamboree Road at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.641 B</td>
<td>0.790 C</td>
<td>0.799 C</td>
<td>0.009</td>
<td>No</td>
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<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.647 B</td>
<td>0.844 D</td>
<td>0.854 D</td>
<td>0.010</td>
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</tr>
<tr>
<td>9 Jamboree Road at Chapman Avenue/East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>0.533 A</td>
<td>0.748 C</td>
<td>0.756 C</td>
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<td>No</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.845 D</td>
<td>0.911 E</td>
<td>0.918 E</td>
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</tr>
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</table>
### Table 3.16-21 (cont.): Year 2040 Buildout Peak-Hour Intersection Capacity Analysis (Without Sand and Gravel)

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) Year 2040 Buildout Existing Traffic Conditions</th>
<th>(2) Year 2040 Buildout Without Project Traffic Conditions</th>
<th>(3) Year 2040 Buildout With Project Traffic Conditions</th>
<th>(4) Project Significant Impact</th>
<th>(5) Year 2040 Buildout With Project With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ICU</td>
<td>LOS</td>
<td>ICU</td>
<td>LOS</td>
<td>ICU</td>
</tr>
<tr>
<td>Orange Park Boulevard at Chapman Avenue</td>
<td>AM</td>
<td>D</td>
<td>0.418</td>
<td>A</td>
<td>0.561</td>
<td>A</td>
<td>0.564</td>
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<tr>
<td></td>
<td>PM</td>
<td></td>
<td>0.530</td>
<td>A</td>
<td>0.718</td>
<td>C</td>
<td>0.719</td>
</tr>
<tr>
<td>Project Driveway/Nicky Way at East Santiago Canyon Road</td>
<td>AM</td>
<td>D</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
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</table>
### Table 3.16-22: Year 2040 Buildout Peak-Hour Intersection Capacity Analysis (With Sand and Gravel)

<table>
<thead>
<tr>
<th>Key Intersections</th>
<th>Time Period</th>
<th>Minimum Acceptable LOS</th>
<th>(1) With Trip Credit Existing Traffic Conditions</th>
<th>(2) Year 2040 Buildout Without Project Traffic Conditions</th>
<th>(3) Year 2040 Buildout With Project Traffic Conditions</th>
<th>(4) Project Significant Impact</th>
<th>(5) Year 2040 Buildout With Project With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ICU</td>
<td>LOS</td>
<td>ICU</td>
<td>LOS</td>
<td>ICU</td>
</tr>
<tr>
<td>1 Cannon Street at Serrano Avenue</td>
<td>AM PM</td>
<td>D</td>
<td>0.847</td>
<td>D</td>
<td>0.960</td>
<td>E</td>
<td>0.961</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.912</td>
<td>E</td>
<td>1.314</td>
<td>F</td>
<td>1.314</td>
</tr>
<tr>
<td>2 Cannon Street at Taft Avenue</td>
<td>AM PM</td>
<td>D</td>
<td>0.983</td>
<td>E</td>
<td>0.872</td>
<td>D</td>
<td>0.873</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.869</td>
<td>D</td>
<td>0.879</td>
<td>D</td>
<td>0.881</td>
</tr>
<tr>
<td>3 Hewes Street at Villa Park Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.748</td>
<td>C</td>
<td>0.634</td>
<td>B</td>
<td>0.634</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>0.743</td>
<td>B</td>
<td>0.826</td>
<td>D</td>
<td>0.831</td>
</tr>
<tr>
<td>4 Cannon Street at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.755</td>
<td>C</td>
<td>0.832</td>
<td>D</td>
<td>0.834</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.743</td>
<td>C</td>
<td>0.856</td>
<td>D</td>
<td>0.861</td>
</tr>
<tr>
<td>5 Orange Park Boulevard at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.841</td>
<td>D</td>
<td>0.790</td>
<td>C</td>
<td>0.794</td>
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<td></td>
<td></td>
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<td>0.883</td>
<td>D</td>
<td>0.755</td>
<td>C</td>
<td>0.759</td>
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<tr>
<td>6 Meads Avenue at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.787</td>
<td>C</td>
<td>0.630</td>
<td>B</td>
<td>0.635</td>
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<td></td>
<td></td>
<td>0.769</td>
<td>C</td>
<td>0.638</td>
<td>B</td>
<td>0.645</td>
</tr>
<tr>
<td>7 Newport Boulevard at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.770</td>
<td>D</td>
<td>0.880</td>
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<td>0.845</td>
<td>D</td>
<td>0.852</td>
</tr>
<tr>
<td>8 Jamboree Road at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.644</td>
<td>B</td>
<td>0.790</td>
<td>C</td>
<td>0.795</td>
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<td>0.648</td>
<td>B</td>
<td>0.844</td>
<td>D</td>
<td>0.853</td>
</tr>
<tr>
<td>9 Jamboree Road at Chapman Avenue/East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>0.535</td>
<td>A</td>
<td>0.748</td>
<td>C</td>
<td>0.752</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.848</td>
<td>D</td>
<td>0.911</td>
<td>E</td>
<td>0.916</td>
</tr>
<tr>
<td>10 Orange Park Boulevard at Chapman Avenue</td>
<td>AM PM</td>
<td>D</td>
<td>0.418</td>
<td>A</td>
<td>0.561</td>
<td>A</td>
<td>0.563</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>0.530</td>
<td>A</td>
<td>0.718</td>
<td>A</td>
<td>0.719</td>
</tr>
<tr>
<td>— Project Driveway—Nicky Way at East Santiago Canyon Road</td>
<td>AM PM</td>
<td>D</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.636</td>
</tr>
<tr>
<td></td>
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<td>—</td>
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<td>0.642</td>
</tr>
</tbody>
</table>

**Note:** A significant impact would occur if the project causes ICU to increase by 0.010 or more.  
### Table 3.16-23: Year 2040 Buildout Roadway Segment Level of Service Summary (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Future Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Future Capacity at LOS “E”</th>
<th>(4) Year 2040 Buildout Without Project Traffic Conditions</th>
<th>(5) Year 2040 Buildout With Project Traffic Conditions</th>
<th>Sign. Imp. (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>60,564</td>
<td>1.076</td>
<td>F</td>
</tr>
<tr>
<td>C Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>48,405</td>
<td>0.860</td>
<td>D</td>
</tr>
<tr>
<td>D Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>9,864</td>
<td>0.263</td>
<td>A</td>
</tr>
<tr>
<td>E Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>37,275</td>
<td>0.994</td>
<td>E</td>
</tr>
<tr>
<td>F Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>10,605</td>
<td>0.442</td>
<td>A</td>
</tr>
<tr>
<td>G East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>38,430</td>
<td>0.683</td>
<td>B</td>
</tr>
<tr>
<td>H East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>47,565</td>
<td>0.845</td>
<td>D</td>
</tr>
<tr>
<td>I East Santiago Canyon Road between Orange Park Blvd and Meads Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>41,773</td>
<td>0.742</td>
<td>C</td>
</tr>
<tr>
<td>J East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>40,005</td>
<td>0.711</td>
<td>C</td>
</tr>
<tr>
<td>K East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>28,140</td>
<td>0.500</td>
<td>A</td>
</tr>
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</table>
### Table 3.16-23 (cont.): Year 2040 Buildout Roadway Segment Level of Service Summary (Without Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Future Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Future Capacity at LOS “E”</th>
<th>(4) Year 2040 Buildout Without Project Traffic Conditions</th>
<th>(5) Year 2040 Buildout With Project Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>L Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>28,560</td>
<td>29,109</td>
</tr>
<tr>
<td>M Jamboree Road south of Chapman Avenue/East Santiago Canyon Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>31,815</td>
<td>31,973</td>
</tr>
<tr>
<td>N East Santiago Canyon Road east of Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>36,750</td>
<td>37,177</td>
</tr>
<tr>
<td>O Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>30,975</td>
<td>30,975</td>
</tr>
<tr>
<td>P Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
<td>4D</td>
<td>Primary Arterial</td>
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<td>26,731</td>
</tr>
<tr>
<td>Q Orange Park Boulevard between East Santiago Canyon Road and Chapman Avenue</td>
<td>2D</td>
<td>Collector</td>
<td>12,000</td>
<td>5,909</td>
<td>5,970</td>
</tr>
</tbody>
</table>
### Table 3.16-24: Year 2040 Buildout Roadway Segment Level of Service Summary (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
<th>(1) No. of Future Lanes</th>
<th>(2) Arterial Classification</th>
<th>(3) Future Capacity at LOS “E”</th>
<th>(4) Year 2040 Buildout Without Project Traffic Conditions</th>
<th>(5) Year 2040 Buildout With Project Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Cannon Street north of Serrano Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>30,705</td>
<td>0.545</td>
</tr>
<tr>
<td>B Cannon Street between Serrano Avenue and Taft Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>60,564</td>
<td>1.076</td>
</tr>
<tr>
<td>C Cannon Street between Taft Avenue and East Santiago Canyon Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>48,405</td>
<td>0.860</td>
</tr>
<tr>
<td>D Cannon Street south of East Santiago Canyon Road</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>9,864</td>
<td>0.263</td>
</tr>
<tr>
<td>E Villa Park Road west of Hewes Street</td>
<td>4D</td>
<td>Primary Arterial</td>
<td>37,500</td>
<td>37,275</td>
<td>0.994</td>
</tr>
<tr>
<td>F Hewes Street south of Villa Park Road</td>
<td>4U</td>
<td>Secondary Arterial</td>
<td>24,000</td>
<td>10,605</td>
<td>0.442</td>
</tr>
<tr>
<td>G East Santiago Canyon Road between Hewes Street and Cannon Street</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>38,430</td>
<td>0.683</td>
</tr>
<tr>
<td>H East Santiago Canyon Road between Nicky Way and Orange Park Boulevard</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>47,565</td>
<td>0.845</td>
</tr>
<tr>
<td>I East Santiago Canyon Road between Orange Park Boulevard and Meads Avenue</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>41,773</td>
<td>0.742</td>
</tr>
<tr>
<td>J East Santiago Canyon Road between Meads Avenue and Newport Boulevard</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>40,005</td>
<td>0.711</td>
</tr>
<tr>
<td>K East Santiago Canyon Road between Newport Boulevard and Jamboree Road</td>
<td>6D</td>
<td>Major Arterial</td>
<td>56,300</td>
<td>28,140</td>
<td>0.500</td>
</tr>
</tbody>
</table>
Table 3.16-24 (cont.): Year 2040 Buildout Roadway Segment Level of Service Summary (With Sand and Gravel Credit)

<table>
<thead>
<tr>
<th>Key Roadway Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L</strong> Jamboree Road between East Santiago Canyon Road and Chapman Avenue</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>O</strong> Chapman Avenue between Cannon Street and Orange Park Boulevard</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>P</strong> Chapman Avenue between Orange Park Boulevard and Newport Boulevard</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Note:
A significant impact would occur if the project causes V/C to increase by 0.010 or more.
Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Congestion Management Program
Impact TRANS-4: The project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Impact Analysis
East Santiago Canyon Road is a facility that is identified in the Orange County Congestion Management Program. As discussed in Impacts TRANS-1 through TRANS-3, the proposed project can mitigate all of its impacts associated with deficient traffic conditions on East Santiago Canyon Road. Thus, no conflicts with the Congestion Management Plan would occur. Impacts would be less than significant.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.

Roadway Safety
Impact TRANS-5: The project may substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis
Linscott, Law, & Greenspan evaluated the proposed access point on East Santiago Canyon Road for safety and operational efficiency. The results are summarized as follows.

Site Access Evaluation
Access to the proposed project will be provided via one proposed full-access signalized driveway, located directly opposite Nicky Way, along East Santiago Canyon Road. An internal network of roadways would provide vehicular access to each individual dwelling unit.
Table 3.16-25 summarizes the intersection operations at the proposed project driveway for Existing, Near-Term (Year 2022), and Buildout (Year 2040) traffic conditions at completion and full occupancy of the proposed project. Review of Table 3.16-25 shows that the proposed project driveway is forecast to operate at acceptable LOS D or better during the AM and PM peak-hours for Existing plus Project, Year 2022 plus Project and Year 2040 plus Project traffic conditions. As such, project access will be adequate. Motorists entering and exiting the project site will be able to do so comfortably, safely, and without undue congestion.

Appendix D presents the existing plus project, Year 2022 plus project and Year 2040 plus project level of service calculation worksheets for the proposed project driveway.

**Table 3.16-25: Project Driveway Peak-Hour Levels of Service Summary**

<table>
<thead>
<tr>
<th>Project Driveway/Nicky Way at East Santiago Canyon Road</th>
<th>Time Period</th>
<th>Intersection Control</th>
<th>Existing With Project Traffic Conditions</th>
<th>Year 2022 With Project Traffic Conditions</th>
<th>Year 2040 With Project Traffic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>5∅ Traffic Signal</td>
<td>0.791 ICU, 0.585 LOS</td>
<td>0.836 ICU, 0.623 LOS</td>
<td>0.636 ICU, 0.642 LOS</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>Traffic Signal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:

∅ = phase


Mitigation Measure TRANS-5 requires the Applicant to improve project driveway/Nicky Way at East Santiago Canyon Road, along with Cannon Street at Taft Avenue, to allow for safe and efficient access to the proposed project prior to the issuance of the first certificate of occupancy. With the implementation of mitigation, impacts would be less than significant.

**Level of Significance Before Mitigation**

Potentially significant impact

**Mitigation Measures**

**MM TRANS-5**

Prior to issuance of the first certificate of occupancy, the City of Orange shall verify that the Applicant has made improvements to traffic circulation in the area and ensured that adequate ingress and egress to the project site is provided, as follows:

- Project Driveway/Nicky Way at East Santiago Canyon Road:
  - Construct the north leg of the intersection and provide one inbound lane and two outbound lanes (i.e., one dedicated left turn lane and one shared through/right-turn lane).
  - Widen and/or restripe East Santiago Canyon Road to provide one eastbound left-turn lane, one westbound right-turn lane and a third westbound through-lane.
  - A five-phase signal has been installed with protected left-turn phasing in the east-west direction and permissive phasing in the north-south direction.
- Cannon Street at Taft Avenue:
  - Widen and/or restripe Canon Street to provide a third northbound through lane.

**Level of Significance After Mitigation**
Less than significant impact.

**Emergency Access**

Impact TRANS-6: The project would not result in inadequate emergency access.

**Impact Analysis**
The proposed project would take vehicular access from East Santiago Canyon Road via a full-access signalized driveway aligned with Nicky Way. All internal roadways would comply with applicable Fire Code requirements, including those that pertain to access for large emergency vehicles. Additionally, the proposed project would not modify any surrounding roadways in a manner that could impair emergency response or evacuation (road closures, lane narrowing, etc.). Therefore, adequate emergency access would be provided. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Conflict with Alternative Transportation**

Impact TRANS-7: The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

**Impact Analysis**
This impact will address conflicts with alternative transportation, including public transit, bicycles, and pedestrians.

**Public Transit**
The closest OCTA bus stop is located approximately 2 miles from the project site at East Santiago Canyon College. At the time of this writing, there are no plans to introduce bus service to the segments of East Santiago Canyon Road or Cannon Street that abut the project site. Furthermore, the proposed project does not have any features that preclude or otherwise impede bus service should it be proposed in the future. Impacts would be less than significant.
Bicycles and Pedestrians

The Class I Santiago Creek Bike Path follows the Santiago Creek corridor before terminating at Cannon Street. The proposed project would extend the trail through the project site to Santiago Oaks Regional Park. This would close a gap in the regional bicycle and pedestrian network.

Additionally, the Santiago Creek Trail along the north bank of Santiago Creek within the project site would remain unchanged. Furthermore, a network of trails would be developed within the project site that would provide linkages between the aforementioned trails and street frontages.

Class II bicycle lanes currently exist along the segments of East Santiago Canyon Road or Cannon Street that abut the project site, and these facilities would be maintained by the proposed project. In addition, the Class II bicycle lanes will be maintained with the proposed widening improvements along East Santiago Canyon Road and Cannon Street.

An off-street recreational trail would be installed along the project frontage with East Santiago Canyon Road and connect to an internal network of pedestrian facilities within the residential portion of the project site. The existing sidewalk along the Cannon Street frontage would be maintained.

Note that there are no existing sidewalks along the Villa Park Landfill frontage with either East Santiago Canyon Road or Cannon Street. The landfill is owned by the County of Orange, and, therefore, the Applicant does not have the legal ability to install sidewalks along its street frontage. As such, this existing condition would remain unchanged. Impacts would be less than significant.

Level of Significance Before Mitigation
Less than significant impact.

Mitigation Measures
No mitigation is necessary.

Level of Significance After Mitigation
Less than significant impact.
3.17 - Tribal Cultural Resources

3.17.1 - Introduction
This section describes the existing Tribal Cultural Resources (TCRs) setting and potential effects from project implementation on the site and its surrounding area. Conclusions are based on initial consultation with the Native American Heritage Commission (NAHC) and subsequent consultation with tribal representatives identified by the NAHC who may have interest in or additional information on TCRs that may be impacted by project development. The review presents the methods employed to identify TCRs, assesses potential impacts to those resources, and presents recommendations to address potential impacts.

3.17.2 - Environmental Setting

Overview
The term “cultural resources” encompasses historic, archaeological, and paleontological resources, and burial sites. Below is a brief summary of each component:

- **Historic Resources**: Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State’s history and are generally less than 200 years old.

- **Archaeological Resources**: Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.

- **Paleontological Resources**: Paleontology is the study of plant and animal fossils.

- **Burial Sites**: Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

Cultural Setting

*Prehistory*

The ultimate purpose of establishing a cultural sequence is to allow for the meaningful comparison of material culture attributes on an intra- and inter-site basis, and to provide the basis for culture-model building. To this end, regional archaeologists generally follow Wallace’s Southern California Format (1955 and 1978) for discussing the prehistoric chronology for the project area. However, the established chronologies are often augmented or even abandoned. For example, Fagan (2003) does not use the traditional archaeological cultural sequences for his regional analysis, instead he described the stages as generalized models related to recent environmental change and socio-economic models, all associated with an ever-changing environment. Thusly, it should be noted that all of the presented cultural sequences are regularly challenged, as are the meanings of the individual frames of reference. Wallace’s prehistoric format is as follows:

- Early Period (before 6000 B.C.)
- Milling Stone (6000 to 3000 B.C.)
- Intermediate (3000 B.C. to A.D. 500)
- Late Prehistoric (A.D. 500 to A.D. 1769).
Wallace also argued (Wallace, in Heizer 1978) that the stages prior to 2000 B.C> in southern California could be assigned to:

- San Dieguito Period (Period I: 9000 to 6000 B.C.)
- Standard Millingstone Period (Period II: 6000 to 3000 B.C.)

Warren (1968) uses the following terms to subdivide the periods:

- San Dieguito Tradition (Before 5500 B.C.)
- Encinitas Tradition (5500 B.C. to A.D. 600)
- Shoshonean Tradition (A.D. 600 to A.D. 1769)

The Late Period has been further subdivided into the San Luis Rey I (A.D. 500 to A.D. 1500) and the San Luis Rey II (post 1500). The difference between the latter two is the introduction of locally made brownware pottery, the first indigenous pottery in southern California (Cameron 1999).

**Early Period (before 6000 B.C.)**

Beginning with the first human presence in California, prehistoric artifacts and cultural activities appear to represent a big-game hunting tradition. Very few sites from the Early Period exist, especially in inland areas. Of the Early Period sites that have been excavated and dated, most exhibit a refuse assemblage suggesting short-term occupation. Such sites have been detected in caves and around fluvial lakes fed by streams that existed near the end of the last glaciation. Chipped stone tools at these sites are surmised to reflect a specialized tool kit used by hunters. Large-stemmed bifaces are common. Millingstones and dart points are not part of the Early Period tool assemblage.

**Millingstone Period (6000 to 3000 B.C.)**

The onset of the Millingstone Period appears to correspond with an interval of warm and dry weather known as the Altithermal (Wallace 1978). Artifact assemblages begin to reflect an emphasis on plant foods and foraging subsistence systems, as evidenced by the grinding tools found at these sites, and including choppers and scraper planes. Notably, there is a reduced number of large bifaces in the excavated assemblages. Sites are occupied for a greater duration than Early Period sites, based on an increase in occupational debris. Although numerous Millingstone sites have been identified in Orange County, few are actually dated. The best understood of these is CA-ORA-64, which has been radiometrically dated to about 6000 B.C. (Breece et al. 1988 and 1989). Excavations at this site located near Newport Bay, have been essential to the formulation of local research models (Koerper 1981). Research at this site suggests a settlement-subsistence system during the Millingstone Period reflecting a semi-sedentary lifestyle. The regional distribution of Millingstone sites reflects the theory that aboriginal groups may have followed a modified central-based wandering settlement pattern. Under this model, large groups would have occupied a base camp for a portion of the year, with smaller bands occupying subsidiary camps in order to exploit resources not generally available near the base camp. Sedentism apparently increased in areas possessing an abundance of resources that were available for longer periods. Arid inland regions would have provided a seasonally and spatially dispersed resource base, restricting sedentary occupation, compared to the coastal areas. Generally, the Millingstone assemblage in the Los Angeles basin is
typified by large and heavy deep-basin metates, wedge-shaped manos and large choppers and scrapers. Flaked lithic tools are slightly larger and cruder than in later periods, and cogstones begin to appear.

Intermediate Period (3000 B.C. to A.D. 500)

Dating between roughly 3000 B.C. and A.D. 500, the Intermediate Period represents a slow technological transition, which is presumably related to the slowly drying and warming climate. Site artifact assemblages retain many attributes of the Millingstone Period. Technologically speaking, these sites are difficult to distinguish from earlier sites in the absence of radiometric dates.

Additionally, these sites generally contain a reduced number of large-stemmed or notched projectile points but with an increase in portable mortars and pestles. The lack of large points combined with the mortars and pestles suggest that the indigenous populations may have preferred harvesting, processing, and consuming acorns and other seeds over hunting. Because of a general lack of data, neither the settlement and subsistence systems nor the cultural evolution of this period is well understood. It has been proposed by some researchers that group sedentarism increased with the exploitation of storable, high-yield plant food resources such as acorns. The duration and intensity of occupation at base camps increased during this period, especially in the later part of the period.

Generally, the Intermediate Period artifact assemblage in the Los Angeles basin is vague, including elements of the Late Prehistoric Period and Millingstone Period, such as heavy grinding implements.

A higher percentage of projectile points occur and smaller chipped stone tools are used.

Late Prehistoric Period (A.D. 500 to A.D. 1769)

Extending from about A.D. 500 to Spanish contact in A.D. 1769, the Late Prehistoric Period reflects an increased sophistication and diversity in technology. Village sites are common. Late assemblages characteristically contain small projectile or dart points, which imply the use of the bow and arrow.

In addition, assemblages include steatite bowls, asphaltum artifacts, grave goods, and elaborate shell ornaments. Use of bedrock milling stations is purported to have been widespread during this period, as it was in the previous period. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Pottery, previously traded into the area, is made locally during the latest stage of this Period and is of simple construction technology. Cameron (1999) names several village sites in inland Orange County that are located within Gabrieliño territory. These exhibited pottery, which suggests that the pre-contact Gabrieliño may have used pottery as a part of their lifestyle. One of these Late Prehistoric Period sites, Tomato Springs (CA-Ora-244), has been the subject of numerous excavations (Cottrell 1985) that have continued into the 21st century.

Native American Background

The project area is situated within an area that has been ethnographically mapped as the Gabrieliño traditional use area. The Gabrieliño tribal territory is mapped as extending north from Aliso Creek to just beyond the Topanga Canyon along the Pacific Coast, and inland to the City of San Bernardino.
(Bean and Smith 1978). Their territory would have included portions of the Santa Ana River, and several islands, and diffusion of ideas between neighboring groups, such as the Juaneño to the south.

The Gabrieliño

Kroeber (1925) and Bean and Smith (1978) form the primary historical references for this tribal group. The arrival of Spanish explorers and the establishment of missions and outposts during the eighteenth century ended the prehistoric period in California. At this time, traditional Gabrieliño society began to fragment as a result of foreign diseases and the mass removal of local Indian groups to the Mission San Gabriel and Mission San Juan Capistrano. The Gabrieliño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family (a language family that includes the Shoshonean groups of the Great Basin). The total Gabrieliño population in about 1770 AD was roughly 5,000 persons, based on an estimate of 100 small villages, with approximately 50 to 200 people per village. Their range is generally thought to have been located along the Pacific coast from Malibu to San Pedro Bay, south to Aliso Creek, then east to Temescal Canyon, then north to the headwaters of the San Gabriel River. Also included were several islands, including Catalina. This large area encompasses the City of Los Angeles, much of Rancho Cucamonga, Corona, Glendale, and Long Beach. By 1800, most traditional Gabrieliños had either been killed, or subjugated by the Spanish. The first modern social analyses of Gabrieliño culture took place in the early part of the twentieth century (Kroeber 1925). By this time, acculturation and disease had devastated this group, and the population studied was a remnant of their pre-contact form. Nonetheless, the early ethnographers viewed the Gabrieliño as a chief-oriented society of semi-sedentary hunter-gatherers. Influenced by coastal and interior environmental settings, their material culture was quite elaborate and consisted of well-made wood, bone, stone, and shell items. Included among these was a hunting stick made to bring down numerous types of game. Located in an area of extreme environmental diversity, large villages may have been permanent, such as that found on or near Red Hill in Rancho Cucamonga, with satellite villages utilized seasonally. Their living structures were large, domed, and circular thatched rooms that may have housed multiple families. The society exhibited ranked individuals, possibly chiefs, who possessed a much higher level of economic power than unranked persons.

Historic Background

City of Orange

The earliest European explorers to enter the Alta California region were the Spanish who navigated along the Pacific coast during the 17th and 18th centuries. During the latter portion of the 18th century, the Spanish sent Father Junipero Serra to Alta California to create a chain of Missions and Mission outposts to bring Christianity to the indigenous population, and create a foundation for colonization of the region. Between 1769 and 1823, Spanish explorers and missionaries established 21 missions, four presidios, and four pueblos between San Diego and Sonoma. Also during this period, American explorations occurred when trappers traveled west in search of abundant sea otter and beaver pelts. In 1805, when Lewis and Clark crossed the Rocky Mountains and continued on to the Pacific coast, they reported that the area was richer in beaver and otter than any other country on earth. The fur trappers were close behind the explorers, and by 1840, the beaver was over-exploited and was no longer worth hunting (Bean and Rawls 1983).
By the early decades of the 19th century, the Missions began establishing ranchos for the purpose of expanding their agricultural holdings. According to the history provided on the City of Orange website, the first landowner in this area was a retired Spanish soldier named Juan Pablo Grijalva. Grijalva was granted permission to ranch “the place of the Arroyo de Santiago” by the Spanish colonial government in 1801. This land ran from the Santa Ana River and the foothills above Villa Park, to the sea at Newport Beach. Though Grijalva lived in San Diego, he built an adobe ranch house on what is now Hoyt Hill, at the corner of Hewes and Santiago Canyon Road (City of Orange History 2008).

Following Grijalva’s death, the rancho was taken over by his son-in-law, Jose Antonio Yorba, and grandson, Juan Pablo Peralta. These lands then became known as the Rancho Santiago de Santa Ana, and were granted to Yorba and Peralta on July 1, 1810. This 75,000-acre grant was made by Governor Arrellaga, and encompassed the majority of the Santa Ana Canyon of eastern Orange County, as well as much of northern Orange County and Newport Bay (Lech 2004). The children and grandchildren of Yorba and Peralta moved to various parts of the sizable rancho, and through time, the descendants absorbed additional acreage. The family holdings eventually encompassed lands extending from Riverside to the ocean.

In the early 1860s, Leonardo Cota, an extended family member, borrowed money from the largest landowner in southern California. Abel Stearns lent Cota money, and held his share of the Rancho as collateral. When Cota defaulted on his loan in 1866, Stearns filed a lawsuit in the Los Angeles Superior Court to demand a partition of the land, in order to claim Cota’s section. It took two years to determine how much land was due to each family member, and the rancho was then divided into 1,000 units for the heirs and the claimants in the lawsuit (City of Orange 2008).

The Los Angeles attorneys involved in the lawsuit, Alfred Chapman and Andrew Glassell, received a portion of the Rancho Santiago de Santa Ana as payment for their services. They quickly subdivided their land into a 1-square-mile town, with surrounding 10-acre farm lots. This community was named Richland until 1873, when the town’s application for a post office was denied due to the existence of another Richland in Sacramento County. According to local legend, Richland was renamed Orange after a poker game where Glassell, Chapman, and two other men allowed the winner to decide the new town name. Though the winner is not recorded, Richland was named Orange in January of 1875.

By 1873 Richland/Orange was beginning to grow by opening the first local store, named Fisher Brothers, a civic organization, called the Orange Grange, and the first church, which was of the Methodist Episcopal denomination. This was also the year that local farmers began planting orange groves in the area. The area then continued to grow when the Southern Pacific Railroad built a depot in Orange, in 1880, and again with the arrival of the Santa Fe railroad in 1887.

During the land boom of the 1880s, Orange attracted many travelers, founded local newspapers, build a public library, a bank and incorporation occurred on April 6, 1888. When the boom ended, local farmers continued to plant orange trees. By 1929, Orange County produced more than $12 million from the sale of oranges. However, with the depression and inclement weather in the 1930s, the industry fell into economic decline (City of Orange 2008).
By the 1950s, a second real estate boom occurred, and large tracts of houses were constructed into the 1970s. Thereafter the City of Orange continued to grow at a steady pace, and development is still occurring, especially at the eastern edge of the city.

_Historic Era Aerial Photograph_

FCS (formerly MBA) additionally conducted a historic era aerial photograph review, from an image taken from the National Imagery Program for Orange County. This photograph was taken on December 12, 1952. During the historic era, the project area was part of an extensive sand and gravel mining operation, which began in approximately 1952 (LSA 1992). This process removed sand and gravel from alluvial deposits, and then processed the sediments in an open area located to the south of Santiago Creek. Evidence of the surface mining activity is observable in this photograph in the central portion of the project area, to the south of Santiago Creek. In this area, there is an absence of vegetation, multiple piles of soil, and numerous dirt tracks and/or unimproved access roads. Santiago Creek borders the surface mining area to the north, and numerous citrus groves are found to the southeast, south, and southwest along Santiago Canyon Road. In the southwestern corner of the project area, to the north of Santiago Canyon Road, and at the southern terminus of a windrow of eucalyptus trees is a clearing with apparent structures. These structures are situated between citrus groves, and appear to coincide with the location of a concrete foundation and an asphalt and concrete lot recorded during the pedestrian survey as Site 001. Additional citrus groves are found within the project area boundaries, to the north of Santiago Creek. These citrus groves appear to cover the recorded location of prehistoric-age site CA-Ora-369, which was detected during the cultural resources literature search at the South Central Coastal Information Center (SCCIC).

### 3.17.3 - Regulatory Framework

**State**

**California Assembly Bill 52**

Assembly Bill 52 (AB 52) was signed into law on September 25, 2014, and provides that any public or private “project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” Tribal Cultural Resources include “[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources.” Under prior law, Tribal Cultural Resources were typically addressed under the umbrella of “cultural resources,” as discussed above. AB 52 formally added the category of “tribal cultural resources” to CEQA, and extends the consultation and confidentiality requirements to all projects, rather than just projects subject to Senate Bill (SB) 18 as discussed above.

The parties must consult in good faith, and consultation is deemed concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource (if such a significant effect exists); or (2) when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed upon during consultation must be recommended for inclusion in the environmental document. AB 52 also identifies mitigation measures that may be considered to
avoid significant impacts if there is no agreement on appropriate mitigation. Recommended measures include:

- Preservation in place
- Protecting the cultural character and integrity of the resource
- Protecting the traditional use of the resource
- Protecting the confidentiality of the resource
- Permanent conservation easements with culturally appropriate management criteria.

### 3.17.4 - Methodology

**NAHC Sacred Lands File Record Search and Tribal Consultation**

On October 6, 2008, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed in its Sacred Lands File for this portion of the City of Orange. FCS’s efforts were associated with CEQA-level information scoping only. The response from the NAHC was received on October 10, 2008. To ensure that all potential Native American resources are adequately addressed, letters to each of the 12 listed tribal contacts were sent on November 3, 2008. FCS received an emailed response from John Tommy Rosas, the Tribal Administrator for the Tongva Ancestral Territorial Tribal Nation on November 3, 2008. Mr. Rosas indicated that the Tribe objected to the project, and that development in that area violated their indigenous rights. He cited the project location along Santiago Creek as an especially sensitive issue. Further, he noted the need for additional consultation efforts as required by law, including Section 106 of the National Historic Preservation Act (NHPA) and SB 18. He also requested additional information on the proposed project. FCS Project Archaeologist Jennifer M. Sanka replied to this email, providing additional information on the Conceptual Development Plan and asking for any information that could be included in the Cultural Resources Assessment regarding the sanctity of Santiago Creek. This information was requested, as FCS was aware that Santiago Creek and adjacent environs would be considered a culturally sensitive area to local Tribes. This assumption is based upon the presence of numerous prehistoric-age sites along the Creek and a known reliance on its resources by the indigenous people as outlined in ethnographic studies.

**Updated Native American Consultation**

An updated Native American Consultation for the Rio Santiago Project was prepared by BCR Consulting, dated May 12, 2011. Subsequently, on March 3, 2017, the City contacted three tribes pursuant to AB 52. Each tribe was notified in writing of the proposed project and invited to consult with the City. The letters were sent via certified mail; to date, the City has not received any responses.

**Pedestrian Survey**

A pedestrian survey was conducted on the property on December 1, 2017. The property appeared to be in the same condition as described in the 2008 survey report. Most of the property has been heavily impacted from sand and gravel activities. In the northernmost section of the property, immediately south of Mabury Street, is a relatively narrow strip of heavily vegetated land. It is in that general area where CA-ORA-369 was originally recorded and ultimately tested and found
ineligible for the CRHR. An intensive effort was made to see if any remains of the site were present. None were observed. The 2008 investigation recorded an old concrete foundation and adjacent asphalt and gravel lot. The site was not indicated on the topographic records search map at the SCCIC, and no record of the site is on file with SCCIC. This is likely the fenced lot access via Jamestown off Santiago. However, at the time of its recordation, it was deemed insignificant and no further work was recommended.

3.17.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, tribal cultural resources impacts resulting from the implementation of the proposed project would be considered significant if the project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.17.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the construction and operation and provides feasible mitigation measures where appropriate.

Eligibility for California Register Listing

| Impact TCR-1: | The project would not cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). |

Impact Analysis

On July 1, 2015, an amendment to Public Resources Code 21074 took effect, which created a new category of cultural resources: “Tribal Cultural Resources.” These resources are defined as:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - Included or determined to be eligible for inclusion in the California Register of Historical Resources (Analyzed in Impact TCR-1).
  - Included in a local register of historical resources.
A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant (Analyzed in Impact TCR-2).

The project site is not listed on any national, state, or local registers of historic places (including those for tribal cultural resources). Additionally, no tribal cultural resources were observed during the field survey. Because the project site contains undeveloped land, it does not possess any attributes that would make it eligible for such a listing. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Eligibility as Determined by Lead Agency**

| Impact TCR-2: | The project would not cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. |

**Impact Analysis**
The City of Orange sent a letter to the following tribes in March 2017 notifying them of the proposed project and advising that any tribal consultation request should be made within 30 days:

- San Gabriel Band of Mission Indians
- Torres Martinez Desert Cahuilla Indians
- Gabrieleno Band of Mission Indians

To date, the City of Orange has not received a tribal consultation request from any of the tribes and, therefore, there is no basis for the City to conclude that the project site supports tribal cultural resources. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
3.18 - Utilities and Service Systems

3.18.1 - Introduction

This section describes the utilities and service systems setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information provided in the Preliminary Hydrology and Hydraulic Report prepared by Fuscoe Engineering, which is provided as Appendix K. Additional information was provided by the City of Orange website, the City of Orange 2015 Urban Water Management Plan, the Orange County Sanitation District website, the California Department of Resources Recovery and Recycling website, the Edison International (Southern California Edison) 10-K Annual Report, and the Sempra Energy (SoCalGas) 10-K Annual Report.

3.18.2 - Environmental Setting

Potable Water

The City of Orange Water Division provides potable water service to 36,347 customer accounts within the Orange city limits and nearby areas outside the city limits. Approximately 97 percent of customer accounts are within the Orange city limits.

Water System

The City’s water system consists of 15 active groundwater wells, 16 reservoirs (with more than 40 million gallons of storage capacity), 16 pump stations, and 450 miles of pipeline.

Water Supply

The City of Orange obtains potable water from two primary sources (groundwater and imported) that account for 96 percent of supply and an additional source (surface) that accounts for 4 percent of supply. Groundwater is pumped from 15 active wells located throughout the City. Imported water is obtained from Metropolitan Water District (Metropolitan) via Municipal Water District of Orange County (MWDOC) and is delivered to the City through eight water connections. Surface water from Irvine Lake is obtained from Serrano Water District.

The City of Orange 2015 Urban Water Management Plan provides detailed descriptions of groundwater and imported water, which are summarized briefly in the following section. Recycled water is not currently available to the service area, nor is it contemplated to be available in the future by the 2015 Urban Water Management Plan.

Groundwater

Historically, local groundwater has been the cheapest and most reliable source of supply for the City. The City currently relies on approximately 20,623 acre-feet/year of groundwater from the Orange County (OC) Basin.

The OC Basin underlies the northerly half of Orange County beneath broad lowlands. The OC Basin is managed by Orange County Water District (OCWD) and covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the...
northeast, and the Pacific Ocean to the southwest. The OC Basin boundary extends to the Orange County-Los Angeles Line to the northwest, where groundwater flows across the county line into the Central Groundwater Basin of Los Angeles County. The total thickness of sedimentary rocks in the OC Basin is over 20,000 feet, with only the upper 2,000 to 4,000 feet containing fresh water. The Pleistocene or younger aquifers comprising this Basin are over 2,000 feet deep and form a complex series of interconnected sand and gravel deposits. The OC Basin’s full volume is approximately 66 million acre-feet.

Groundwater levels are managed within a safe basin operating range to protect the long-term sustainability of the OC Basin and to protect against land subsidence. OCWD regulates groundwater levels in the OC Basin by regulating the annual amount of pumping.

The OC Basin is not adjudicated; as such, pumping from the OC Basin is managed through a process that uses financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is based on establishing the basin production percentage, the percentage of each Producer’s total water supply that comes from groundwater pumped from the OC Basin. Groundwater production at or below the basin production percentage is assessed a Replenishment Assessment. While there is no legal limit as to how much an agency pumps from the OC Basin, there is a financial disincentive to pump above the basin production percentage. Agencies that pump above the basin production percentage are charged the Replenishment Assessment plus the Basin Equity Assessment, which is calculated so that the cost of groundwater production is greater than MWDOC’s full service rate. The Basin Equity Assessment can be increased to discourage production above the basin production percentage. The basin production percentage is set uniformly for all producers by OCWD on an annual basis.

**Imported Water**

The City supplements its local groundwater with imported water purchased from Metropolitan through MWDOC. Imported water represents approximately 30 percent of the City’s total water supply. Metropolitan’s principal sources of water are the Colorado River via the Colorado River Aqueduct and the Lake Oroville watershed in Northern California through the State Water Project. The raw water obtained from these sources is, for Orange County, treated at the Robert B. Diemer Filtration Plant located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the Metropolitan Lower Feeder and State Water Project water through the Yorba Linda Feeder.

**2015 Water Supply**

The 2015 Urban Water Management Plan indicated that actual water supplies totaled 28,643 acre-feet in 2015. Table 3.18-1 summarizes the 2015 actual supply sources.

**Table 3.18-1: Actual Water Supply (2015)**

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<td>20,372</td>
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<td>Purchased or Imported Water</td>
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Table 3.18-1 (cont.): Actual Water Supply (2015)

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<th>Source</th>
<th>Acre-Feet</th>
</tr>
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<tbody>
<tr>
<td>Surface Water</td>
<td>1,757</td>
</tr>
<tr>
<td>Total</td>
<td>28,643</td>
</tr>
</tbody>
</table>

Source: City of Orange, 2016.

Long-Term Water Supply

The 2015 Urban Water Management Plan projects future water supplies and demand through 2040. Table 3.18-2 summarizes the projections.

Table 3.18-2: Long-Term Water Supply Projections

<table>
<thead>
<tr>
<th>Source</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater</td>
<td>19,600</td>
<td>20,650</td>
<td>20,650</td>
<td>20,650</td>
<td>20,650</td>
</tr>
<tr>
<td>Purchased or Imported Water</td>
<td>7,200</td>
<td>7,650</td>
<td>7,650</td>
<td>7,650</td>
<td>7,650</td>
</tr>
<tr>
<td>Surface</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>Total</td>
<td>28,000</td>
<td>29,500</td>
<td>29,500</td>
<td>29,500</td>
<td>29,500</td>
</tr>
</tbody>
</table>

Source: City of Orange, 2016.

Wastewater

Wastewater service in the City of Orange is provided by two public agencies: the City of Orange Public Works Department, which provides local collection services; and OCSD, which provides regional collection, treatment, and disposal services.

City of Orange

The City maintains and operates pipeline 315 miles of sewer pipeline. The City discharges effluent into OCSD regional trunk lines.\(^1\)

Orange County Sanitation District

OCSD is a public agency that provides wastewater collection, treatment, and disposal services for approximately 2.6 million people within a 479-square-mile service area within central and northwest Orange County. OCSD is a special district that is governed by a Board of Directors consisting of local elected officials from jurisdictions within the service area.

\(^1\) OCSD maintains and operates 386 miles of trunk line in its service area.
Treatment Plants

OCSD operates two treatment plants: Plant No. 1 in Fountain Valley and Plant No. 2 in Huntington Beach.

Plant No. 1 provides secondary treatment and has a primary treatment capacity of 198 million gallons per day (mgd) and a secondary treatment capacity of 110 mgd. The plant treats approximately 130 mgd. All of the treated effluent from Plant No. 1 is piped to OCWD for further processing for the Groundwater Replenishment Program, which involves groundwater recharge along the Santa Ana River.

Plant No. 2 provides secondary treatment and has a primary treatment capacity of 168 mgd and a secondary treatment capacity of 90 mgd. The plant treats approximately 100 mgd. All of the treated effluent from Plant No. 2 is discharged into the Pacific Ocean via an outfall consisting of a 10-foot diameter pipeline that extends 5 miles from shore to the point approximately 200 feet below the ocean surface.

Storm Drainage

The City of Orange Public Works Department and the Orange County Flood Control District oversee stormwater drainage within the Orange city limits. The municipal storm drainage system consists of an integrated system of curbside gutters, catch basins, drainage ditches, man-made channels, and creeks. Stormwater is managed pursuant to the National Pollutant Discharge Elimination System (NPDES) municipal stormwater permit issued on May 22, 2009 (Order No. R8-2009-0030) by the Santa Ana Regional Water Quality Control Board (RWQCB).

The project site is located in the Santiago Creek Watershed, which is tributary to the Santa Ana River. The Handy Creek storm drain operated by the Orange County Flood Control District is located underground in the central portion of the project site. The storm drain enters the project site from the south at the intersection of N. Nicky Way/E. Santiago Canyon Road. The storm drain conveys stormwater collected in areas south of E. Santiago Canyon Road into Santiago Creek. Within the project site, the Handy Creek storm drain accepts runoff from the eastern portion of the site via several inlets. Runoff from other portions sheet flow to Santiago Creek or pond on-site and percolate into the soil.

An unnamed storm drain located in the northwestern portion of the project site conveys stormwater collected in the Mabury Ranch neighborhood directly into Santiago Creek. Note that the project site does not directly discharge runoff into either storm drain.

Solid Waste

CR&R Incorporated provides franchise solid waste collection to residential and commercial customers in Orange. Solid waste collected in Orange is transported to the CR Transfer and Material Recovery Facility in Stanton for processing.
**Landfills**

Non-recoverable solid waste from Orange is disposed of at the three landfills listed in Table 3.18-3. As shown in the table, the landfills have 384.7 million cubic yards of combined remaining capacity.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Location</th>
<th>Permitted Daily Throughput (tons)</th>
<th>Cubic Yards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Permitted Capacity</td>
</tr>
<tr>
<td>Frank Bowerman Sanitary Landfill</td>
<td>Irvine</td>
<td>11,500</td>
<td>266.0 million</td>
</tr>
<tr>
<td>Olinda Alpha Sanitary Landfill</td>
<td>Brea</td>
<td>8,000</td>
<td>148.8 million</td>
</tr>
<tr>
<td>El Sobrante Landfill</td>
<td>Corona</td>
<td>16,054</td>
<td>184.9 million</td>
</tr>
<tr>
<td><strong>Total Remaining Capacity</strong></td>
<td></td>
<td><strong>384.7 million</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: California Department of Resources Recovery and Recycling, 2016.

**Energy**

Southern California Edison (SCE) provides electrical service and Southern California Gas Company (SoCalGas) provides natural gas service to customers in the City of Orange.

**Electricity**

SCE, a unit of Edison International, provides electricity to approximately 5 million metered customers within a 50,000-square-mile service area of Southern California. SCE obtains electricity from a variety of sources, including its own generation plants and purchased power from outside sources. SCE has an ownership stake in the Palo Verde Nuclear Generating Station (Arizona) and owns the Big Creek Hydroelectric System (Fresno County). SCE purchases electricity from a variety of outside sources, including natural gas, wind, geothermal, solar, and biomass generation facilities. SCE is currently in the process of implementing several major transmission system improvements in its service area to meet the electrical needs of planned growth.

**Natural Gas**

SoCalGas, a unit of Sempra Energy, provides natural gas service to 5.9 million metered customers within an approximately 20,000-square-mile service area located throughout Central and Southern California, excluding San Diego County, Long Beach, and the desert area of San Bernardino County. (The population of the service area is estimated to be 21.6 million.) SoCalGas has interstate pipeline capacity contracts with El Paso Natural Gas Company, Transwestern Pipeline Company, Gas Transmission Northwest, Pacific Gas and Electric Company, and Kern River Gas Transmission Company to supply natural gas. The utility’s system consists of 2,964 miles of transmission and storage pipelines, 49,874 miles of distribution pipelines, and 47,413 miles of service pipelines. SoCalGas operates four underground natural gas storage reservoirs with a combined working capacity of 137 billion cubic feet.
3.18.3 - Regulatory Framework

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610–10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans and update them every 5 years. The act requires that urban water management plans include a description of water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions. Specifically, urban water management plans must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier’s water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;
- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier’s water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures; and
- Assess the water supply reliability.

Pursuant to the Urban Water Management Planning Act, the City of Orange maintains an Urban Water Management Plan.

Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009, and requires local agencies to implement water efficiency measures as part of its review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into its own code requirements for landscaping. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed “Landscape Documentation Package” that discusses water efficiency, soil management, and landscape design elements.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in
the State to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; established a
comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid
waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of
solid waste generated. In 2007, amendments to the California Integrated Waste Management Act
introduced a new per capita disposal and goal measurement system that moves the emphasis from
an estimated diversion measurement number to using an actual disposal measurement number as a
per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per
year) uses only two factors: a jurisdiction’s population (or in some cases, employment) and its
disposal as reported by disposal facilities.

**California Public Utilities Commission**

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication,
electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the
responsibility of the CPUC to (1) assure California utility customers safe, reliable utility service at
reasonable rates; (2) protect utility customers from fraud; and (3) promote a healthy California
economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

**Title 24, California’s Energy Efficiency Standards for Residential and Nonresidential Buildings**

Title 24, Part 6, of the California Code of Regulations establishes California’s Energy Efficiency
Standards for Residential and Nonresidential Buildings. The 2013 Building Energy Efficiency
Standards (which are updated on an approximately three-year cycle) went into effect on July 1, 2014.
The Energy Commission then developed 2016 Standards, which continue to improve upon the 2013
Standards for new construction of, and additions and alterations to, residential and nonresidential
buildings. The 2016 Standards went into effect on January 1, 2017. Single-family homes built to the
2016 standards will use about 28 percent less energy for lighting, heating, cooling, ventilation, and
water heating than those built to the 2013 standards. In 30 years, California will have saved enough
energy to power 2.2 million homes, reducing the need to build 12 additional power plants. Over
time, the energy savings will accumulate as the Standards affect each subsequent year of
construction. The savings result from changes to both the residential and nonresidential standards.
The Standards affect both newly constructed buildings and alterations to existing buildings. These
savings result from retrofit insulation requirements for existing roofs and the energy requirement for
renovated lighting systems to meet the updated Standards.

**Local**

**City of Orange**

**General Plan**

The City of Orange General Plan sets forth the following goals and policies relevant to utility and
service systems:

**Infrastructure Element**

- **Goal 1.0:** Ensure water, sewer, and storm drain systems that meet the needs of residents and
  businesses.
- **Policy 1.1:** Provide sufficient levels of water, sewer, and storm drain service throughout the
  community.
• **Policy 1.2:** Correct known deficiencies in the City’s sewer, storm drain, and water systems and work toward environmentally sustainable systems.

• **Policy 1.6:** Require that new developments fund fair-share costs associated with City provision of water, sewer, and storm drain service and are consistent with City and service provider plans to complete needed improvements and funding capacity for such improvements.

• **Goal 2.0:** Reduce the amount of waste material entering regional landfills with an efficient and innovative waste management program.

• **Policy 2.1:** Provide sufficient levels of solid waste service throughout the community.

• **Goal 4.0:** Ensure adequate provision of electricity, natural gas, telephone and data services and cable television.

• **Policy 4.2:** Continue to require utilities to be placed underground for new development.

**Storm Drainage Requirements**

All projects requiring discretionary City approval are required to prepare a Water Quality Management Plan in accordance with the Orange County Drainage Area Master Plan and City of Orange Local Implementation Plan. Chapter 7 of both documents contain information on the types of projects requiring Water Quality Management Plans, which include new development and redevelopment projects in both the private and public sector.

The Water Quality Management Plan is intended to provide information related to the project’s generation and mitigation of water quality pollutants and assessment of hydrological impacts. The Water Quality Management Plan contains project information related to site characteristics, expected pollutants, hydrology impacts, incorporation of structural and non-structural best management practices, Low Impact Development design features, operation and maintenance, and public education and training. The purpose of the Water Quality Management Plan is to minimize water quality impacts to downstream water bodies.

**3.18.4 - Methodology**

FCS reviewed several sources for information about utilities and service systems including the City of Orange website, City of Orange 2015 Urban Water Management Plan, the Orange County Sanitation District website, the California Department of Resources Recovery and Recycling website, the Edison International (SCE) 10-K Annual Report, and Sempra Energy (SoCalGas) 10-K Annual Report.

**3.18.5 - Thresholds of Significance**

According to the CEQA Guidelines’ Appendix G Environmental Checklist, to determine whether impacts to utilities and service systems are significant environmental effects, the following questions are analyzed and evaluated.

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?

g) Comply with federal, state, and local statutes and regulations related to solid waste?

3.18.6 - Project Impacts and Mitigation Measures

Potable Water

Impact USS-1: The proposed project would be served with adequate water supplies and would not require additional entitlements or the construction or expansion of water facilities.

Impact Analysis

The proposed project would be served with potable water provided by the City of Orange. There are two existing water mains located within E. Santiago Canyon Road that measure 18 inches and 24 inches in diameter, respectively.

The proposed project would install a network of underground water lines within the project site that would connect to one or both of the existing water mains within E. Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit. Using the Average Baseline Per Capital water demand rate set forth in Table 2-9 of the City’s 2015 Urban Water Management Plan, project water demand is estimated in Table 3.18-4. As shown in the table, the proposed project would demand 99.5 acre-feet on an annual basis.

Table 3.18-4: Estimated Water Demand

<table>
<thead>
<tr>
<th>Dwelling Units</th>
<th>Population</th>
<th>Demand Rate</th>
<th>Water Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>226 gallons/capita/day</td>
<td>88,818 gallons 0.3 acre-foot</td>
</tr>
<tr>
<td>128</td>
<td>393</td>
<td>88,818 gallons 0.3 acre-foot</td>
<td>32.4 million gallons 99.5 acre-feet</td>
</tr>
</tbody>
</table>

Note:
Population estimate derived from Table 3.13-3 in Section 3.13, Population and Housing.
Source: City of Orange 2016; FirstCarbon Solutions, 2018.

The 2015 Urban Water Management Plan is based on demand between 2020 and 2040 under all water year scenarios being fully met by available supplies (28,000 to 29,500 acre-feet). The demand projections in the 2015 Urban Water Management Plan accounted for future residential development.
on the project site. The Urban Water Management Plan used the previous Rio Santiago application to estimate this usage, and assumed 460 dwelling units consisting of a combination of townhomes and senior units on 30 acres and passive and active recreation and open space on 80 acres.

In summary, the proposed project’s demand is captured in future demand projections set forth in the 2015 Urban Water Management Plan and can be met under all scenarios. Thus, the City would not need to secure additional water supplies to serve the proposed project. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Wastewater**

| Impact USS-2: | The proposed project would be served by a wastewater treatment plant with adequate capacity and would not require the construction of new or expanded facilities. |

**Impact Analysis**

The proposed project would be served with wastewater collection and treatment provided by OCSD. There is an existing OCSD trunk sewer main located within E. Santiago Canyon Road that measures 18 inches in diameter.

The proposed project would install a network of underground sewer piping within the project site that would connect to the existing sewer main within E. Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit. Using OCSD’s single-family residential wastewater generation rate, project wastewater generation is estimated in Table 3.18-5. As shown in the table, the proposed project would generate 0.060 mgd.

**Table 3.18-5: Estimated Wastewater Generation**

<table>
<thead>
<tr>
<th>Single-Family Residential Wastewater Generation Rate</th>
<th>Acres</th>
<th>Daily Wastewater Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,488 gallons/acre/day</td>
<td>40.7</td>
<td>60,562 gallons (0.060 mgd)</td>
</tr>
</tbody>
</table>

Note:
mgd = million gallons per day  
Source: City of Orange 2016; FirstCarbon Solutions, 2018.
OCSD Plant No. 1 has a primary treatment capacity of 198 mgd and Plant No. 2 has a primary treatment capacity of 168 mgd. The proposed project’s daily effluent generation of 0.060 mgd represents less than 0.01 percent of the primary treatment capacity at either plant.

In summary, adequate wastewater collection and treatment would be available to serve the proposed project and new or expanded wastewater facilities would not be necessary. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Storm Drainage**

| Impact USS-3:                      | The proposed project would not create a need for new or expanded downstream storm drainage facilities. |

**Impact Analysis**

The proposed project would result in the development of up to 128 dwelling units and infrastructure on 40.7 acres of the project site. The remaining acreage would be dedicated for open space and recreation use. Thus, the proposed project would increase the amount of impervious surface coverage on the project site, and would create the potential for increased runoff leaving the project site that may create potential flooding conditions in downstream waterways.

Of particular concern is the Handy Creek storm drain, which currently accepts runoff from the project site under existing conditions. The County of Orange has previously identified the storm drain as a deficient flood control facility that is not capable of conveying runoff from a 100-year storm event.

The proposed project would install a network of storm drainage facilities within the project site consisting of inlets, underground piping, and basins. This system would serve 72.58 acres of the site and direct runoff to a 3.7-acre foot capacity stormwater detention basin in the western portion of the site. A flow control structure will be installed within the detention system to meter the outflow from the site to below predevelopment levels. Catch basins will be located at various points within the site to capture subarea flows. The system is designed to detain flows from a 100-year storm event as required by the Orange County Hydrology Manual.

Two sub drainage areas will flow directly to Santiago Creek without detention. One of these areas is approximately 1.46 acres directly over the Handy Creek Channel. This flow will be directed to the Handy Creek Channel. The other area is the trail system adjacent to Santiago Creek and totals 6.20 acres. This flow will be picked up via a storm drain system, which will outlet at the same location as the detention basin outlet. The outlet structure from the detention basin to Santiago Creek will be protected by riprap and an energy dissipater.
As discussed in greater detail in Impact HYD-3 in Section 3.9, Hydrology and Water Quality, the proposed project would achieve net reduction in 2-year and 100-year storm event discharge into Santiago Creek and no net increase in 2-year and 100-year storm event discharge into the Handy Creek storm drain.

This serves to illustrate that the proposed storm drainage system would slow, reduce, and meter the volume of runoff leaving the project site and ensure that downstream storm drainage facilities are not inundated with project-related stormwater. Impacts would be less than significant.

Finally, the proposed project would not alter the two unnamed storm drains located in the northwestern portion of the project site.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.

**Solid Waste**

<table>
<thead>
<tr>
<th>Impact USS-4:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project would be served with adequate landfill capacity and will comply with federal, state, and local statutes and regulations related to solid waste.</td>
</tr>
</tbody>
</table>

**Impact Analysis**
This impact assesses whether the proposed project would be served by a landfill with adequate capacity or comply with federal, state, and local statutes and regulations related to solid waste. Solid waste would be generated by construction and operational activities. Each is discussed below.

**Construction Solid Waste**
Short-term construction waste generation is summarized in Table 3.18-6. The estimate of 1,380 cubic feet was calculated using an average of 4.38 pounds of debris per square foot of residential construction, as provided by the United States Environmental Protection Agency.

**Table 3.18-6: Estimated Construction Waste Generation**

<table>
<thead>
<tr>
<th>Project Square Feet</th>
<th>Construction Waste Generation Rate</th>
<th>Construction Waste Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.38 pounds/square foot</td>
<td>Tons</td>
</tr>
<tr>
<td>450,000</td>
<td></td>
<td>986</td>
</tr>
</tbody>
</table>

Notes:
Each dwelling unit estimated to be an average of 3,000 square feet
1 ton = 2,000 pounds 1 ton = 1.4 cubic yards
The estimate of 1,380 cubic yards of construction waste would be an extremely small amount (less than 0.01 percent) relative to the remaining capacity at the landfills that serve Orange (384.7 million cubic yards). Therefore, impacts would be less than significant.

**Operational Waste**

Operational solid waste generation for residential uses was calculated using the City of Orange’s residential waste generation figures provided by Cal Recycle. The project’s waste generation calculations are provided in Table 3.18-7. As shown in the table, the proposed project is expected to create 142.1 cubic yards of waste annually.

**Table 3.18-7: Estimated Operational Waste Generation**

<table>
<thead>
<tr>
<th>Dwelling Units</th>
<th>Operational Waste Generation Rate</th>
<th>Operational Waste Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>1,586 pounds/year/dwelling unit</td>
<td>101.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>142.1</td>
</tr>
</tbody>
</table>

Notes:
1 ton = 2,000 pounds
1 ton = 1.4 cubic yards
Sources: Cal Recycle, 2015; FirstCarbon Solutions, 2018.

The estimate of 142.1 cubic yards of operational waste would be an extremely small amount (less than 0.01 percent) relative to the remaining capacity at the landfills that serve Orange (384.7 million cubic yards). Moreover, the proposed project would be served with solid waste and recycling collection services provided by a contracted solid waste hauler. Recoverable materials would be separated from the waste stream either at the project site or at a materials recovery facility in accordance with state and local solid waste regulations. Therefore, solid waste impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Energy**

Impact USS-5: The project would not result in the inefficient, unnecessary, or wasteful use of energy.

**Impact Analysis**

SCE would provide electrical service and the SoCalGas would provide natural gas service to the proposed project.
A network of underground electrical lines would be installed within the project site and connect to existing SCE facilities along E. Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit.

A network of underground natural gas lines would be installed within the project site and connect to existing SoCalGas facilities along E. Santiago Canyon Road. Underground service laterals would be extended to each dwelling unit.

Table 3.18-8 provides an estimate of the proposed project’s annual energy consumption. These figures were derived from residential energy consumption rates observed in California. These estimates likely overstate actual consumption, because they include structures located in different climate regions or states with less stringent energy efficiency standards than California.

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>Dwelling Units</th>
<th>Consumption Rate</th>
<th>Annual Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>128</td>
<td>6,294 kWh/dwelling unit</td>
<td>805,632 kWh</td>
</tr>
<tr>
<td>Natural Gas</td>
<td></td>
<td>35,000 cubic feet/dwelling unit</td>
<td>4.5 million cubic-feet</td>
</tr>
</tbody>
</table>

Note:
kWh = kilowatt hours
Source: FirstCarbon Solutions, 2018.

As shown in the table, the proposed project is estimated to demand 805,632 kWh of electricity and 4.5 million cubic feet of natural gas at buildout on an annual basis. All new non-residential development would be subject to the latest adopted edition of the Title 24 energy efficiency standards, which are among the most stringent in the U.S.

In addition, as outlined within Section 6.4, Energy Conservation of this Draft EIR, Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth in Section 6.4, Energy Conservation, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical energy-producing facilities, and, therefore, will not create a significant impact on energy resources.
As such, the proposed project would not result in the unnecessary, wasteful, or inefficient use of energy. Impacts would be less than significant.

**Level of Significance Before Mitigation**
Less than significant impact.

**Mitigation Measures**
No mitigation is necessary.

**Level of Significance After Mitigation**
Less than significant impact.
SECTION 4: CUMULATIVE EFFECTS

4.1 - Introduction

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project’s incremental effects are cumulatively considerable. Cumulatively considerable means that “... the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), “... the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone.” The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed project’s cumulative impacts were considered in conjunction with other proposed and approved projects in the City of Orange. Table 4-1 provides a list of the other projects considered in the cumulative analysis.

Table 4-1: Cumulative Projects

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Project</th>
<th>Characteristics</th>
<th>Location</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Orange</td>
<td>Salem Lutheran Church Expansion</td>
<td>7,388 square-foot expansion</td>
<td>6500 East Santiago Canyon Road</td>
<td>Approved; not built</td>
</tr>
<tr>
<td></td>
<td>Arena Site Single-Family Homes</td>
<td>7 single-family homes</td>
<td>6422 East Santiago Canyon Road</td>
<td>Permitted; not approved</td>
</tr>
<tr>
<td></td>
<td>Santiago Hills II</td>
<td>1,066 single-family homes, 114 condominiums, 9.4-acre park</td>
<td>East Santiago Canyon Road/West of State Route 241</td>
<td>Approved; not built</td>
</tr>
<tr>
<td></td>
<td>Olson Project</td>
<td>37 townhomes</td>
<td>Washington Avenue/South Hamlin Street</td>
<td>Approved; under construction</td>
</tr>
<tr>
<td></td>
<td>Ridgeline</td>
<td>39 single-family dwelling units</td>
<td>1051 North Meads Avenue</td>
<td>Rescinded by City Council</td>
</tr>
</tbody>
</table>

Source: City of Orange, 2017.
4.2 - Cumulative Impact Analysis

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project and other projects. An EIR should not discuss impacts that do not result from the proposed project.

- When the combined cumulative impact from the increment associated with the proposed project and other projects is not significant, an EIR need only briefly explain why the impact is not significant; detailed explanation is not required.

- An EIR may determine that a project’s contribution to a cumulative effect impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share of mitigation intended to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on these principles as the basis for determining the significance of the proposed project’s cumulative contribution to various impacts.

4.2.1 - Aesthetics, Light, and Glare

The geographic scope of the cumulative aesthetics, light, and glare analysis is the area surrounding the project site. This is the area within view of the project and, therefore, the area most likely to experience changes in visual character or experience light and glare impacts.

Two of the projects listed in Table 4-1 are within view of the project site (Salem Lutheran Church Expansion and Arena Site Single Family Homes). The proposed project consists of the development of 128 dwelling units on 40.7 acres of the site and preservation of the remaining acreage as open space. The project vicinity is characterized by suburban development and open space, including single-family residential uses, the closed Villa Park Landfill, and Santiago Oaks Regional Park. Much of the surrounding project area has been developed within the past 50 years in compliance with the General Plan, and the City’s current municipal code requirements related to design and visual character. Compliance with these standards, as well as the City’s review and approval role in the planning process has ensured a visually compatible and cohesive development pattern in the surrounding area. Therefore, there is currently no existing cumulatively significant visual aesthetic impact within the project area.

As stated previously, two of the projects listed in Table 4-1 are within view of the project site. The project vicinity has existing sources of light and glare. All new light fixtures associated with the project would be subject to the provisions of the Orange Municipal Code, which requires that new lighting must be directed, controlled, screened, or shaded in such a manner as not to shine directly on surrounding premises. As such, no significant change in light and glare levels would occur as a result of the proposed project. Other projects that involve the installation of new exterior lighting fixtures would be required to implement similar devices to prevent light spillage.

Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact relating to aesthetics, light, and glare.
4.2.2 - Agriculture Resources and Forest Resources

There are no agricultural or forestry resources within the project site or on surrounding land uses. This condition precludes the possibility of the proposed project contributing to a cumulative impact in this regard. No impacts would occur.

4.2.3 - Air Quality

The geographic scope of the cumulative greenhouse gas emissions analysis is the South Coast Air Basin, which encompasses Orange County, Los Angeles County (excluding the Antelope Valley), Ventura County, Riverside County (excluding the Coachella Valley and the desert region) and San Bernardino County (excluding the desert region). Air quality is impacted by topography, dominant air flows, atmospheric inversions, location, and season; therefore, using the Air Basin represents the area most likely to be impacted by air emissions.

All of the projects listed in Table 4-1 would result in new air emissions, during construction or operations (or both). The air basin is currently in non-attainment of the federal standards for ozone, PM$_{10}$ and PM$_{2.5}$, and is in nonattainment of the state standards for ozone and PM$_{2.5}$. Therefore, there is an existing cumulatively significant air quality impact with respect to these pollutants.

The proposed project would emit construction and operational criteria pollutant emissions at levels that would exceed the South Coast Air Quality Management District (SCAQMD) thresholds. Mitigation is proposed requiring the implementation of criteria pollutant emissions (i.e., ozone precursors) reduction measures and would serve to reduce construction and operational emissions to below SCAQMD thresholds. Thus, the proposed project would not have a cumulatively considerable contribution to criterial pollutant emissions.

As discussed in Section 3.3, Air Quality, cumulative cancer, non-cancer chronic and acute health impacts, and PM$_{2.5}$ concentrations were evaluated at the most impacted off-site sensitive receptor from all sources of toxic air contaminant (TAC) emissions located within 1,000 feet of the project site. The project's individual contribution to cancer risk for all phases is below the SCAQMD's 10 in a million threshold for individual project impacts; therefore, the project would not result in a cumulatively considerable contribution to the existing, cumulatively significant TAC cancer risk.

All other project-related air quality impacts were found to be less than significant and did not require mitigation. Other projects that result in similar impacts would be required to mitigate for their impacts. Because the proposed project can mitigate all of these remaining air quality impacts to a level of less than significant, it would not have a related cumulatively significant impact with respect to these impact areas.

4.2.4 - Biological Resources

The geographic scope of the cumulative biological resources analysis is the region surrounding the project site. The project site is located in an area characterized by urban development and infrastructure; accordingly, habitats in these areas tend to be characterized as highly disturbed, and impacts would be localized. Recent development patterns and anticipated future growth in the
Orange region is considered an existing cumulatively significant impact to biological resources due to the loss of potential habitat for rare species.

The proposed project has the potential to have a significant impact on the least Bell’s vireo and nesting birds. Mitigation Measures BIO-2a through BIO-2d are proposed requiring pre-construction surveys for these species and implementation of protection measures if they are found to be present. Some of the other projects listed in Table 4-1 are located on sites with similar biological attributes and, therefore, would be required to mitigate for impacts on special-status wildlife species in a manner similar to the proposed project. The required mitigation would reduce the project’s contribution to any significant cumulative impact on special-status wildlife species to less than cumulatively considerable.

The proposed project has the potential to have a significant impact on sensitive riparian communities and wetlands. Mitigation Measures BIO-3 and BIO-4 are proposed requiring restoration or replacement of disturbed features. Some of the other projects listed in Table 4-1 are located on sites with similar biological attributes and, therefore, would be required to mitigate for impacts on sensitive riparian communities and wetlands. The required mitigation would reduce the project’s contribution to any significant cumulative impact on sensitive riparian communities and wetlands to less than cumulatively considerable.

All other project-related biological resource impacts (e.g., wildlife movement, conservation plans) were found to be less than significant and did not require mitigation. Other projects that result in similar impacts would be required to mitigate for their impacts. Because the proposed project’s impact on all of these remaining biological resources is less than significant, it would not have a cumulatively considerable contribution to any existing significant cumulative impact.

### 4.2.5 - Cultural Resources

The geographic scope of the cumulative cultural resources analysis is the project vicinity. Cultural resource impacts tend to be localized because the integrity of any given resource depends on what occurs only in the immediate vicinity around that resource, such as disruption of soils; therefore, in addition to the project site itself, the area near the project site would be the area most affected by project activities (generally within a 500-foot radius).

Construction activities associated with development projects in the project vicinity may have the potential to encounter undiscovered cultural resources. These projects would be required to mitigate for impacts through compliance with applicable federal and state laws governing cultural resources. Even if a significant cumulative impact could be found, the proposed project would not make a cumulatively considerable impact with required mitigation. The likelihood of any significant cultural resources on the project site are very low given the developed nature of the site, previous disruptions to its ground and the lack of any known resource within its boundaries. Although there is the possibility that previously undiscovered resources could be encountered by subsurface earthwork activities, the implementation of standard construction mitigation measures would ensure that undiscovered cultural resources are not adversely affected by project-related construction activities, which would prevent the destruction or degradation of potentially significant
cultural resources in the project vicinity. Given the low potential for disruption, and the comprehensiveness of mitigation measures that would apply to this project and those in the vicinity, the proposed project would not make a cumulatively considerable contribution to any potentially significant cumulative impact on cultural resources.

Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to cultural resources.

4.2.6 - Geology and Soils

The geographic scope of the cumulative geology, soils, and seismicity analysis is the project vicinity. Adverse effects associated with geologic, soil, and seismic hazards tend to be localized, and the area near the project site would be the area most affected by project activities (generally within a 0.25-mile radius). Development in the project vicinity has not included any uses or activities which would result in geology, soils or seismicity impacts (such as mining or other extraction activities), and there is no existing cumulatively significant impact.

Development projects in the project vicinity may have the potential to be exposed to seismic hazards. However, there is less than significant potential of the projects in combination to expose people or structure to substantial adverse effects, including the risk of loss, injury, or death in the event of a major earthquake; fault rupture; ground shaking; seismic-related ground failure; landslide; or liquefaction. Some or all of the other projects listed in Table 4-1 would be exposed to similar seismic hazards and, therefore, would be expected to implement similar regulatory requirements and mitigation measures. As such, the proposed project, in conjunction with other projects, would not have a cumulatively significant impact associated with seismic hazards.

Regarding soil erosion, development activities could lead to increased erosion rates on-site soils, which could cause unstable ground surfaces and increased sedimentation in nearby streams and drainage channels. Mitigation Measure HYD-1a requires implementation of standard stormwater pollution prevention measures to ensure that earthwork activities do not result in substantial erosion off-site. This mitigation, in turn, would have to comply with the National Pollution Discharge Elimination System (NPDES) stormwater permitting program, which regulates water quality originating from construction sites. The NPDES program, which governs projects statewide (and nationwide), requires the preparation and implementation of Stormwater Pollution Prevention Programs for construction activities that disturb more than 1 acre, and the implementation of Best Management Practices that ensure the reduction of pollutants during stormwater discharges, as well as compliance with all applicable water quality requirements. Since the proposed project would have to comply with federal and state regulations and required mitigation measures that are designed to minimize impacts to projects on a wide geographic scale, the project’s contribution to any significant cumulative erosion impact would be less than cumulatively considerable.

Finally, the project site contains fill soils that may not be suitable to support urban development. Standard grading and soil engineering practices would abate these issues. Some or all of the other projects listed in Table 4-1 would be exposed to expansive soil hazards or unstable geologic units and, therefore, would be expected to implement similar grading and soil engineering...
practices to address those impacts. The proposed project would not contribute to any significant cumulative impact due to expansive soils or unstable soil units.

Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to geology, soils, and seismicity, assuming compliance with regulatory requirements.

4.2.7 - Greenhouse Gas Emissions

The geographic scope of the cumulative greenhouse gas emissions analysis is the South Coast Air Basin, which encompasses Orange County, Los Angeles County (excluding the Antelope Valley), Ventura County, Riverside County (excluding the Coachella Valley and the desert region) and San Bernardino County (excluding the desert region). Air quality is impacted by topography, dominant air flows, atmospheric inversions, location, and season; therefore, using the Air Basin represents the area most likely to be impacted by air emissions.

Greenhouse gas emissions are inherently cumulative in nature, and the appropriate scope of analysis is the global climate. The proposed project and other projects would emit new greenhouse gas emissions. The proposed project’s greenhouse gas emissions would not exceed the SCAQMD threshold of 3,500 metric tons of carbon dioxide equivalents after implementation of mitigation measures and project design features. Therefore, the project’s contribution of greenhouse gas emissions would not be cumulatively significant.

4.2.8 - Hazards and Hazardous Materials

The geographic scope of the cumulative hazards and hazardous materials analysis is the project area. Adverse effects of hazards and hazardous materials tend to be localized; therefore, the area near the project area would be most affected by project activities. Hazards and hazardous materials are extensively regulated at the federal, state and local levels. There are no land uses in the project vicinity that are known to utilize large quantities of hazardous materials or involve hazardous activities, and there is no existing cumulatively significant impact.

The project site is adjacent to the closed Villa Park Landfill and previously supported uses that involved regular petroleum usage. Thus, the proposed would implement mitigation for vapor intrusion and remediation of petroleum-impacted soils. Other projects listed in Table 4-1 that have become contaminated from past uses or possess characteristics that involve the routine handling of large quantities of hazardous materials, would be required to mitigate for their impacts. Because hazards and hazardous materials exposure is generally localized and development activities associated with the other projects listed in Table 4-1 may not coincide with the proposed project, this effectively precludes the possibility of cumulative exposure.

The project site is adjacent to Santiago Oaks Regional Park and contains the wooded Santiago Creek Corridor. Thus, it is susceptible to wildland fires and would need to provide adequate emergency access. The proposed project would be required to prepare and implement a fuel modification plan and comply with all applicable Fire Code requirements for emergency access. Other projects listed in Table 4-1 that are susceptible to wildland fires would be required to implement similar mitigation.
Because wildland fire exposure is dependent on location and development activities associated with the other projects listed in Table 4-1 may not occur in areas susceptible to such hazards, this effectively precludes the possibility of cumulative exposure.

Because the proposed project’s impact due to hazards and hazardous materials is less than significant, it would not have a cumulatively considerable contribution to any significant cumulative impact.

### 4.2.9 - Hydrology and Water Quality

The geographic scope of the cumulative hydrology and water quality analysis is the project vicinity, generally areas within 0.5 mile of the project site for stormwater impacts due to natural drainage patterns, drainage infrastructure, and impervious surfaces, which all contribute to limit the distance of stormwater flows. Hydrologic and water quality impacts tend to be localized; therefore, the area near the project site would be most affected by project activities. The nature and types of surrounding development, existing stormwater infrastructure and regulatory requirements have ensured that no cumulatively significant impacts related to water pollutants or flooding exist within the project vicinity.

The proposed project would involve short-term construction and long-term operational activities that would have the potential to degrade water quality in downstream water bodies. Mitigation Measures HYD-1a and HYD-1b are proposed that would require implementation of various construction and operational water quality control measures to prevent the release of pollutants into downstream waterways. Other projects that propose new development are required to implement similar mitigation measures in accordance with adopted regulations. The required mitigation would reduce the project’s contribution to any significant cumulative water quality impact to less than cumulatively considerable.

The project site is within the dam failure inundation area of Villa Park Dam and Santiago Dam. Mitigation Measure HYD-5 is proposed requiring the applicant to implement an Emergency Evacuation Plan that identifies procedures for an orderly evacuation of the project in the event indications of failure occur at either facility. Other projects that are within the dam failure inundation area would be required to comply with applicable emergency evacuation regulations. The required mitigation would reduce the project’s contribution to any significant cumulative dam failure impact to less than cumulatively considerable.

All other project-related hydrology impacts (e.g., groundwater, drainage and 100-year flood hazards) were found to be less than significant and do not require mitigation. Because all project-related hydrology impacts are less than significant, the project would not have a cumulatively considerable contribution to any significant cumulative impact for these impacts.

### 4.2.10 - Land Use and Planning

The geographic scope of the cumulative land use analysis is the Orange area. Land use decisions are made at the city level; therefore, the Orange area is an appropriate geographic scope. Development within Orange is governed by the City’s General Plan and the Municipal Code, which ensure logical and orderly development and require discretionary review to ensure that projects do not result in
land use impacts due to inconsistency with the General Plan and other regulations. As a result, there is no existing cumulatively significant land use impact.

The project site is currently designated for LDR, RA, and OS by the General Plan and zoned S-G and R-1-8. The proposed project involves the development of up to 128 dwelling units on 40.7 acres within the area designated RA and the preservation of the remaining 68.5 acres (which overlap with the RA and LDR designations) as open space and recreation uses. Accordingly, the applicant is proposing to change the RA designation to a combination of LDR and OS; and the LDR designation to OS. Thus, the proposed land use changes would serve to relocate the residential use and replace the resource use with open space use, which was found to be a less than significant impact.

Development projects in the Orange area would continue to be required to demonstrate consistency with all applicable City of Orange General Plan and Municipal Code requirements. This would ensure that these projects comply with applicable planning regulations. Those projects listed in Table 4-1 that have been previously approved have been deemed consistent with all applicable General Plan and Specific Plan requirements. For pending projects, the lead agency would be required to issue findings demonstrating consistency with the applicable General Plan and Municipal Code requirements if they are ultimately approved.

Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to land use.

4.2.11 - Mineral Resources

The geographic scope of the cumulative mineral resource analysis is Orange County-Temescal Valley Region, which encompasses Orange County and western Riverside County. This region was defined by the California State Mining and Geology Board for the purposes of identifying mineral resource zones.

The Orange County-Temescal Valley Region was identified by the California Geological Survey as having only an 11 to 20 year supply of aggregate left in 2012. Thus, there an existing cumulative impact in terms of regional availability of aggregate resources.

The project site was surfaced mined for aggregate between 1919 and 1995. Following the cessation of mining activities, mined areas of the site have been backfilled, which effectively precludes the resumption of aggregate mining operations. Furthermore, the Geotechnical Investigation prepared for the project site indicates that it has been mined of economic aggregate deposits and the remaining deposits that are of potential economic value are infeasible to mine, due to limited volume of the localized deposits, expense of removing the overburden (pond deposits), and difficulty associated with excavation logistics. Thus, resuming aggregate mining operations on the project site would not be economically feasible and the resource is effectively depleted. Accordingly, the conversion of the project site to residential and open space/recreational use would not cumulatively contribute to the loss mineral resources of value to the State or region because the site has been depleted of all economically recoverable aggregate materials.
4.2.12 - Noise

The geographic scope of the cumulative noise analysis is the project vicinity, including surrounding sensitive receptors. Noise impacts tend to be localized; therefore, the analysis in Section 3.12, Noise includes a cumulative analysis of existing, proposed, and anticipated future noise levels near the project site. Outdoor noise measurements taken at the project site indicate that the average ambient noise levels are within the “normally acceptable” or “conditionally acceptable” range for all land uses. Therefore, there is no existing cumulatively significant noise impact in the project vicinity.

The proposed project’s construction noise levels may cause a temporary substantial increase in noise levels at nearby receptors. Mitigation is included that would require implementation of construction noise attenuation measures to reduce noise levels; however, construction noise levels may exceed adopted standards at certain nearby receptors and, therefore, is considered a significant unavoidable impact. Other projects listed in Table 4-1 would be required to implement similar mitigation and adhere to Municipal Code restrictions regarding construction noise. It is highly unlikely that a substantial number of the cumulative projects would be constructed simultaneously and close enough to one another for noise impacts to be compounded, given that the projects are at widely varying stages of approval and development. Therefore, it is reasonable to conclude that construction noise from the proposed project would not combine with noise from other development projects to cause cumulatively significant noise impacts.

The proposed project’s construction and operational vibration levels would not exceed annoyance thresholds, and impacts would be less than significant. Because vibration is a highly localized phenomenon, there would be no possibility for vibration associated with the project to combine with vibration from other projects because of their distances from the project site. Therefore, the proposed project would not contribute to a cumulatively significant vibration impact.

The proposed project’s contribution to vehicular noise levels would not exceed the applicable thresholds of significance, which take into account existing noise levels as well as noise from trips associated with other planned or approved projects. Thus, the proposed project would not combine with other projects to cause a cumulatively considerable increase in ambient roadway noise.

Other projects listed in Table 4-1 would be required to evaluate noise and vibration impacts and implement mitigation, if necessary, to minimize noise impacts pursuant to local regulations. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to noise.

4.2.13 - Population and Housing

The geographic scope of the cumulative population and housing analysis is the City of Orange. Population growth is typically measured in relation to the size of the applicable jurisdiction and, thus, the City of Orange is appropriate geographical area. No existing cumulatively significant impacts have been identified for this topic.

The proposed project would develop 128 dwelling units, which would add 393 persons to the City of Orange’s population, which represents an increase of 0.3 percent relative to the City’s population of
141,420. The project site is currently designated for residential use by the City of Orange General Plan and Orange Zoning Ordinance and, thus, is contemplated to support population growth. Growth inducement impacts were found to be less than significant. Other development projects in the City of Orange would be reviewed for impacts on population growth and would be required to address any potential impacts with mitigation. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to growth inducement.

4.2.14 - Public Services

The geographic scope of the cumulative public services analysis is the service area of each of the providers serving the proposed project. Because of differences in the nature of the public service and utility topical areas, they are discussed separately. No existing cumulatively significant impacts have been identified for any of these areas, as all service providers are able to achieve the requisite level of service, capacity or response times.

**Fire Protection and Emergency Medical Services**

The geographic scope of the cumulative fire protection and emergency medical services analysis is the Orange Fire Department’s service area, which consists of the Orange city limits.

The proposed project would develop 128 dwelling units on 40.7 acres of the project site and preserve the remaining acreage as open space. The proposed project is estimated to add 393 new residents to the City’s population. The project site is located within 1.75 miles of the nearest fire station and is within an acceptable response time for fire protection. As such, the proposed project would not create a need for new or expanded fire protection facilities and would not result in a physical impact on the environment.

The project site is adjacent to Santiago Oaks Regional Park and contains the wooded Santiago Creek Corridor. Thus, it is susceptible to wildland fires and would need to provide adequate emergency access. The proposed project would be required to prepare and implement a fuel modification plan and comply with all applicable Fire Code requirements for emergency access. Other projects listed in Table 4-1 that are susceptible to wildland fires would be required to implement similar mitigation. Because wildland fire exposure is dependent on location and development activities associated with the other projects listed in Table 4-1 may not occur in areas susceptible to such hazards, this effectively precludes the possibility of cumulative exposure.

Other development projects in the Fire Department’s service area would be reviewed for impacts on fire protection and emergency medical services and would be required to address any potential impacts with mitigation. According to the Fire Department, existing facilities are sufficient to serve the proposed project in conjunction with existing and cumulative projects. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to fire protection and emergency medical services.

**Police Protection**

The geographic scope of the cumulative police protection analysis is the service area of the Orange Police Department, which consist of the Orange city limits.
The proposed project would develop 128 dwelling units on 40.7 acres of the project site and preserve the remaining acreage as open space. The proposed project is estimated to add 363 new residents to the City’s population. The Police Department indicated that it could serve the proposed project without needing new or expanded police protection facilities. Other development projects within the Police Department service area would be reviewed for impacts on police protection and would be required to address any potential impacts with mitigation. According to the Police Department, existing facilities are sufficient to serve the proposed project in conjunction with existing and cumulative projects. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to police protection.

**Schools**

The geographic scope of the cumulative school analysis is the Orange Unified School District (OUSD), which encompasses the City of Orange, and all or portions of Anaheim, Garden Grove, Santa Ana, and Villa Park.

The proposed project would develop 128 dwelling units on 40.7 acres of the project site and preserve the remaining acreage as open space. The proposed project is estimated to add 64 new students to OUSD. The proposed project would pay development fees to OUSD to fund capital improvements to school facilities. Other development projects within OUSD would be reviewed for impacts on schools and would be required to pay development fees. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to schools.

**Parks**

The geographic scope of the cumulative park analysis is the Orange city limits. Within the city limits are neighborhood parks, community parks, regional parks, trails, community gardens, and historic sites.

The proposed project would develop 128 dwelling units on 40.7 acres of the project site and preserve the remaining acreage as open space. The proposed project is estimated to add 393 new residents to the City’s population. The proposed project would provide a trail network and passive use areas (open space and greenway). The provision of these facilities would be expected to offset the increased demand for such facilities because project residents would be expected to use the facilities closest to where they live. Other development projects within the city limits would be reviewed for impacts on parks and would be required to dedicate new public facilities or pay development fees. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to parks.

**4.2.15 - Recreation**

The geographic scope of the cumulative recreation analysis is the Orange city limits. Within the city limits are neighborhood parks, community parks, regional parks, trails, community gardens, and historic sites.
The proposed project would develop 128 dwelling units on 40.7 acres of the project site and preserve the remaining acreage as open space. The proposed project is estimated to add 393 new residents to the City’s population. The proposed project would provide a trail network and passive use areas (open space and greenway). The provision of these facilities would be expected to offset the increased demand for such facilities because project residents would be expected to use the facilities closest to where they live. Other development projects within the city limits would be reviewed for impacts on parks and would be required to dedicate new public facilities or pay development fees. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to recreation.

4.2.16 - Transportation and Traffic

The geographic scope of the cumulative transportation analysis is the roadway network within the eastern portion of the City of Orange. As discussed in the Transportation Section 3.16 of this EIR, the study facilities consist of ten study intersections and 17 roadway segments.

All of the new development projects listed in Table 4-1 would generate new vehicle trips that may trigger or contribute to unacceptable intersection operations and freeway operations. All projects would be required to mitigate for their fair share of impacts. The proposed project would result in 542 net new daily trips, including 34 net new trips during the weekday morning peak hour, and 97 net new trips during the weekday afternoon peak hour. Project-related trips would not cause any facilities operating at deficient levels to significantly deteriorate further under With Trip Credit Existing Traffic Conditions, Existing Plus Project Traffic Conditions, and Cumulative (2040) conditions. Project-related trips would cause one facility operating at deficient levels to significantly deteriorate further under Year 2022 conditions. While the proposed project would have a significant and unavoidable impact due to the facility not being in a City of Orange plan, such as the MPAH, mitigation is proposed that would require the project applicant to contribute to planned improvements at this location that would restore operations to acceptable levels. Therefore, the proposed project, in conjunction with other projects, would not result in a cumulatively significant impact to unacceptable traffic operations.

For other transportation-related areas (roadway safety; emergency access; public transit, bicycles and pedestrians), the proposed project would have potentially significant impacts related to roadway hazards, but after the implementation of mitigation, these impacts would be reduced to a level of less than significant. Other projects that result in similar impacts would be required to mitigate for their impacts. Because the proposed project can mitigate all other transportation impacts to a level of less than significant, it would not have a related cumulatively significant impact with respect to these other topics.

4.2.17 - Tribal Cultural Resources

Eligibility for California Register Listing

The geographic scope of the cumulative registered historical resources analysis is the project vicinity. Registered historical resource impacts tend to be localized because the integrity of any given resource depends on what occurs only in the immediate vicinity around that resource, such as
construction; therefore, in addition to the project site itself, the area near the project site would be the area most affected by project activities (generally within a 500-foot radius).

Construction activities associated with development projects in the project vicinity may have the potential to remove or damage registered historical resources. Given that neither the project site nor any other project site in the vicinity is listed on any national, state, or local registers of historic places (including those for tribal cultural resources), the proposed project would not make a cumulatively considerable contribution to any potentially significant cumulative impact or registered historical resources.

Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to registered historical resources.

**Eligibility as Determined by Lead Agency**

The geographic scope of the cumulative tribal cultural resources analysis is the project vicinity. Tribal cultural resource impacts tend to be localized because the integrity of any given resource depends on what occurs only in the immediate vicinity around that resource, such as disruption of soils; therefore, in addition to the project site itself, the area near the project site would be the area most affected by project activities (generally within a 500-foot radius).

Construction activities associated with development projects in the project vicinity may have the potential to encounter undiscovered tribal cultural resources. These projects would be required to mitigate for impacts through compliance with applicable federal and state laws governing tribal cultural resources. Even if a significant cumulative impact could be found, the proposed project would not make a cumulatively considerable impact with required compliance. The likelihood of any significant tribal cultural resources on the project site are very low given the developed nature of the site, previous disruptions to its ground, and the lack of any known resource within its boundaries. Although there is the possibility that previously undiscovered resources could be encountered by subsurface earthwork activities, the implementation of standard construction mitigation measures would ensure that undiscovered tribal cultural resources are not adversely affected by project-related construction activities, which would prevent the destruction or degradation of potentially significant tribal cultural resources in the project vicinity. Given the low potential for disruption, and compliance with construction best management practices that would apply to this project and those in the vicinity, the proposed project would not make a cumulatively considerable contribution to any potentially significant cumulative impact on tribal cultural resources.

Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to tribal cultural resources.

**4.2.18 - Utilities and Service Systems**

**Water**

The geographic scope of the cumulative potable water analysis is the City of Orange Water Division service area, which encompasses the Orange city limits and nearby unincorporated areas of Orange County. The City of Orange water service area has 36,347 customer accounts. Water supply impacts
are analyzed in Section 3.17, Utilities and Service Systems of this EIR, which concluded that the City of Orange has adequate potable water supplies to serve the proposed project, as well as other existing and future users. Therefore, there is no existing cumulatively significant impact related to potable water supply.

The proposed project is estimated to demand 99.5 acre-feet per year of potable water. The City of Orange 2015 Urban Water Management Plan indicates that potable water supplies were estimated to be 28,000 acre-feet in 2020 and are expected to increase to 29,500 acre-feet in 2040. The City of Orange has two supply sources (groundwater and imported water) and thus does not rely on a single water source. The proposed project’s increase in demand would represent less than 1 percent of potable water supplies under all scenarios between 2015 and 2035. Furthermore, the City of Orange 2015 Urban Water Management Plan assumed that 460 dwelling units and open space uses would be developed on the project site and, therefore, accounted for demand from the proposed project in its long-term demand projections.

It should be noted that not all of the projects listed in Table 4-1 are located within the City of Orange water service area. However, for those projects that are located within the City of Orange water service area, the 2015 Urban Water Management Plan anticipates adequate water supplies for all water year scenarios through 2040. These projects also would be required to demonstrate that they would be served with potable water service as a standard requirement of the development review process, and these projects may be required to implement water conservation measures to the extent they are required. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to water supply.

Wastewater

The geographic scope of the cumulative wastewater analysis is the areas tributary to Orange County Sanitation District (OCSD) Plant No. 1 and Plant No. 2. The two plants treat all of the effluent generated with the OCSD service area, which covers 479 square miles of central and northwest Orange County.

All future projects would be required to demonstrate that sewer service is available to ensure that adequate sanitation can be provided. The proposed project is estimated to generate 74,400 gallons of wastewater on a daily basis (0.060 million gallons per day [mgd]). Plant No. 1 and Plant No. 2 have a combined treatment capacity of 366 mgd of primary treatment capacity and 200 mgd of secondary treatment capacity. The increase of 0.060 mgd attributable to the proposed project represents less than 1 percent of available primary or secondary treatment capacity at the two plants and, thus, would not exceed the capacity of either plant. As such, the plants would be expected to accept the proposed project’s increase in effluent without needing to expand existing or construct new facilities, as the treatment capacity is sufficient to serve both the project and planned future development in the area. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to wastewater.
Storm Drainage

The geographic scope of the cumulative storm drainage analysis is Santiago Creek, which currently receives runoff from the project site and would continue to do so in the future.

All future development projects in the project vicinity would be required to provide drainage facilities that collect and detain runoff such that off-site releases are controlled and do not create flooding. The proposed project would install a network of storm drainage facilities within the project site consisting of inlets, underground piping, and basins. This system would serve 72.58 acres of the site and direct runoff to a 3-acre on-site stormwater detention basin in the western portion of the site. A flow control structure will be installed within the detention system to meter the outflow from the site to below predevelopment levels. Catch basins will be located at various points within the site to capture subarea flows. The system is designed to detain flows from a 100-year storm event as required by the Orange County Hydrology Manual. Two sub drainage areas will flow directly to Santiago Creek without detention. One of these areas is approximately 1.46 acres directly over the Handy Creek Channel. This flow will be directed to the Handy Creek Channel. The other area is the trail system adjacent to Santiago Creek and totals 6.20 acres. This flow will be picked up via a storm drain system, which will outlet at the same location as the detention basin outlet. The outlet structure from the detention basin to Santiago Creek will be protected by riprap and an energy dissipater. This would ensure that the proposed project would not contribute to downstream flooding conditions during peak storm events and would avoid cumulatively significant stormwater impacts to downstream waterways at times when capacity is most constrained. The proposed project would also implement pollution prevention measures during construction and operations to ensure that downstream water quality impacts are minimized to the greatest extent possible. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively significant impact related to storm drainage.

Solid Waste

The geographic scope of the cumulative solid waste analysis is the areas served by the Frank Bowerman Sanitary Landfill, Olinda Alpha Sanitary Landfill, and the El Sobrante Landfill. The three landfills have a combined remaining capacity of 384.7 million cubic yards.

Future development projects would generate construction and operational solid waste and, depending on the volumes and end uses, would be required to implement recycling and waste reduction measures. The proposed project is anticipated to generate 1,380 cubic yards of solid waste during construction and a net increase of 142.1 cubic yards annually during operations. Both waste generation values represent less than 1 percent of the remaining capacity figure at the three landfills. As such, sufficient capacity is available to serve the proposed project as well as existing and planned land uses in the City of Orange for the foreseeable future. Accordingly, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to solid waste.

Energy

The geographic scope of the cumulative energy analysis is the Southern California Edison (SCE) service area (electricity) and the Southern California Gas Company service area (natural gas). SCE's
electrical service area consists of approximately 50,000 square miles and 5 million metered customers. The Gas Company’s natural gas service area encompasses the southern San Joaquin Valley, the Los Angeles Basin, the Inland Empire, and the Coachella Valley, and has approximately 5.9 million metered customers.

The proposed project would demand an estimated 805,632 million kilowatt-hours (kWh) of electricity and 4.5 million cubic-feet of natural gas on an annual basis. The proposed project’s structures would be designed in accordance with Title 24, California’s Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. The incorporation of the Title 24 standards into the project would ensure that the project would not result in the inefficient, unnecessary, or wasteful consumption of energy. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to energy consumption.
SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.6, this Recirculated Draft Environmental Impact Report (RDEIR) contains a comparative impact assessment of alternatives to the proposed project. The primary purpose of this section is to provide decision makers and the general public with a reasonable number of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project’s significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6).

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
  - Failure to meet most of the basic project objectives;
  - Infeasibility; or
  - Inability to avoid significant environmental effects.

5.1.1 - Significant Unavoidable Impacts

Significant and unavoidable impacts identified in this RDEIR, include the following:

- As discussed in Impact AIR-1, the maximum daily construction emissions after the implementation of Mitigation Measures AIR-1a through AIR-1g would continue to exceed the South Coast Air Quality Management District’s (SCAQMD) regional significance thresholds. Because no additional feasible mitigation measures are available, the project’s regional operational emissions of NOX would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

- As discussed in Impact AIR-2, the project’s construction activities are estimated to generate a maximum of 199.47 pounds of NOX per day with implementation of mitigation measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NOX even after implementation of Mitigation Measures AIR-1a through AIR-1g. The project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions estimates, contained in Appendix F, show that 196.17 of the 199.47 pounds of NOx are from off-site sources. As previously discussed, the project is anticipated to require up to 275,400 total haul trips during the grading period. Because the exceedance is largely a result of the anticipated haul trips, feasible and enforceable mitigation measures to reduce the impact are limited. Based on the total haul trucks required each day and the fact that specific make and model of haul trucks can
vary by contractor and within each contractor fleet, it would not be feasible to mandate the use of specific vehicles to haul soil for the proposed project. Because no additional feasible mitigation measures are available beyond those already quantified in Impact AIR-2, the project’s regional operational emissions of NOx would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

- As discussed in Impact AIR-3, the region is non-attainment for the federal and State ozone standards, the State PM10 standards, and the federal and state PM2.5 standards. Therefore, a project that would not exceed the SCAQMD thresholds of significance on a project-level would also not result in a cumulatively considerable contribution to these regional air quality impacts. The impacts from the project would, therefore, be cumulatively less than significant during project operations and significant and unavoidable during project construction.

- As discussed in Impact TRANS-2, while the fair share contribution provided through Mitigation Measure TRANS-2 would mitigate the proposed project’s impacts at the intersection of Orange Park Boulevard/East Santiago Canyon Road, impacts would be significant and unavoidable as the Orange Park Boulevard/East Santiago Canyon Road intersection is not listed in the City of Orange MPAH, or any similar plans.

All additional impacts analyzed within the Draft EIR were found to be less than significant after mitigation or less than significant with no mitigation required.

5.1.2 - Alternatives to the Proposed Project

The four alternatives to the proposed project analyzed in this section are as follows:

- Development within the Existing Land Use Designations Alternative:
  This alternative consists of new residential development and the continuation of existing sand and gravel operations in accordance with the existing City of Orange General Plan designations. Residential uses would be developed on 15.4 acres north of Santiago Creek (77 dwelling units), with sand and gravel activities occurring on 77.3 acres on both sides of the waterway. The existing R-1-8 Zoning for the residential area would provide a maximum of 77 single-family dwelling units based on acre density and would yield approximately 40 to 50 single-family dwelling units (although a range of 32 to 92 dwelling units could be developed under the existing land use designations). The Santiago Creek corridor would be designated for open space (16.5 acres). The Development within the Existing Land Use Designations Alternative is depicted in Exhibit 5-1.

- No Project Alternative/Existing Land Use Activities Alternative:
  This alternative consists of the continuation of the sand and gravel operations on approximately 77.3 acres of the project site. No dwelling units would be constructed on-site. The project site would remain inaccessible to the public under this alternative.
• **Collaborative Group Alternative:**
  The Collaborative Group Alternative was developed in response to a series of meetings between the Applicant representatives and the Collaborative Group, consisting of representatives from Orange Park Acres, Mabury Ranch, and The Reserve.

  The Collaborative Group Alternative consists of 47 lots, and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop the residential on approximately 0.7 less acres than the proposed project.

  This alternative would not permit all items listed in the preface to the Draft EIR, which are a part of the proposed project.

  The Collaborative Liaison Committee Alternative is depicted in Exhibit 5-2.

• **122-Unit Alternative:**
  The 122-Unit Alternative was developed in response to a series of meetings between the Applicant representatives and the Collaborative Group, consisting of representatives from Orange Park Acres, Mabury Ranch, and The Reserve.

  The 122-Unit Alternative consists of 122 lots, with an average lot size of 11,200-square-feet, on 40.9 acres of the project site. The remaining 68.3 acres of the project site would be turned into open space consisting of 40.2 acres of Greenway Open Space, and 28.1 acres of Grasslands Open Space. This alternative differs from the proposed project in that it would develop ten 0.5-acre equestrian lots on the eastern border of the residential envelope, and twenty-four 10,000-square-foot lots adjacent to East Santiago Canyon Road. Moreover, in response to input the Applicant received during meetings with the Collaborative Group, this alternative proposes larger lot sizes adjacent to the Preserve and portions of Orange Park Acres.

  Overall, the 122-Unit Alternative would have six less dwellings than the proposed project, but would develop approximately 0.2 additional acres of the project site for residential, thereby reducing open space by approximately 0.2 acres in comparison to the proposed project.

  Additionally, this alternative would have $1,000,000 less in local trail improvements from the Development Agreement.

  The 122-Unit Alternative is depicted in Exhibit 5-3.

Four alternatives to the proposed project are analyzed in the following section. These analyses compare the proposed project and each individual project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the project and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the proposed project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.
5.2 - Project Objectives

As stated in Section 2, Project Description, the objectives of the proposed project are to:

OBJ-1. Locate single-family detached residential units in the most suitable areas of the project site and preserve other areas for open space and greenway.

OBJ-2. Preserve and protect Santiago Creek by abating the remnants of the resource extraction activities and establishing a greenway along the creek corridor.

OBJ-3. Promote land use compatibility with neighboring residential uses through the use of locating landscaped setbacks, and the development of a compatible housing product and lot size to the adjoining uses.

OBJ-4. Develop a network of publicly accessible trails within the project site that provide access to Santiago Creek and Santiago Oaks Regional Park.

OBJ-5. Lessen the noise, improve air quality, and reduce traffic impacts from the existing materials recycling and backfilling operations within the project site.

OBJ-6. Provide a circulation system that will minimize adverse effects on local residential neighborhoods and encourage pedestrian and bicycle circulation.

OBJ-7. Provide an infrastructure system, including sewer, water, and storm drain systems that will adequately serve full build-out of the proposed project.

OBJ-8. Improve local circulation by widening of East Santiago Canyon Road and restriping Cannon Road prior to the first certificate of occupancy.

5.3 - Alternative 1—Development within the Existing Land Use Designations

CEQA Guidelines Section 15126.6(e) requires that an EIR evaluate a “No Project Alternative,” which is intended to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. In cases where the project constitutes a land development project, the No Project Alternative is the “circumstance under which the project does not proceed.” For many projects, the No Project Alternative represents a “No Development” or an “Existing Conditions” scenario, in which the project site remains in its existing condition and no new development occurs for the foreseeable future. However, CEQA Guidelines Section 15126.6(e)(3)(B) establishes that “If disapproval of the project under consideration would result in predictable actions by others such as the proposal of some other project, this ‘no project’ consequence should be discussed.”

In this case, the No Project Alternative consists of development and land use activities that would occur pursuant to the existing City of Orange General Plan land use designations of low-density residential, resource, and open space for the project site.
Exhibit 5-1
Development Within The Existing Land Use Designations Alternative

LAND USE SUMMARY
- Residential - LDR: 15.4 Acres
- Resource Area: 77.3 Acres
- Open Space: 16.5 Acres
- TOTAL: 109.2 Acres

*Residential-LDR acres per City of Orange. All other acres to be considered approx.
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CITY OF ORANGE • TRAILS AT SANTIAGO CREEK SPECIFIC PLAN
RECIRCULATED DRAFT ENVIRONMENTALIMPACT REPORT

122-Unit Alternative

Summary

Residential 40.9 acres
1/2-acre Equestrian Lots 10 lots
60x125 (10,000) 24 lots
80x100 (8,000) 29 lots
70x115 (8,000) 43 lots
65x125 (8,000) 16 lots
122 Lots

Average Lot Size
Full Site 11,200 sf
Area A 10,140 sf
Area B 12,970 sf
* Average lot size to be considered approximate

Open Space 58.3 acres
Greenway Open Space 49.2 acres
Grasslands/ Open Space 28.1 acres
* Includes Fuel Mod. Zone, Handly
Creek Linear Park and Santiago
Canyon Road trail easements
Total 109.2 acres

Source: May 2018.
Residential uses would be developed on 15.4 acres north of Santiago Creek, with resource land use activities (sand, gravel, and materials recycling) occurring on 77.3 acres on both sides of the waterway. Consistent with the City of Orange General Plan’s density range of 2.1 to 6.0 units per acre, there is an allowable range of 32 to 92 residential homes, and a target of 77 residential homes on this 15.4-acre residential land use parcel. The existing R-1-8 Zoning for the residential area would provide a maximum of 77 single-family dwelling units based on acre density and would yield approximately 40 to 50 single-family dwelling units (although a range of 32 to 92 dwelling units could be developed under the existing land use designations). Vehicular access would be taken from two points on Mabury Drive.

The intersection of East Santiago Canyon Road/Nicky Way would be improved to provide turn lanes and improved access to the materials recycling and backfilling operation.

The total number of dwelling units that would be developed under this alternative would be 90.

Resource land use activities would be located on 77.3 acres on both sides of the waterway. These activities would consist of the continuation of the existing materials recycling and backfilling operation.

The Santiago Creek corridor would be designated for open space (16.5 acres). However, no community or recreational uses would be developed.

This alternative would require a General Plan Amendment to remove the project site from the East Orange General Plan and Orange Park Acres Plan.

Table 5-1 summarizes the Development within the Existing Land Use Designations Alternative. The Development within the Existing Land Use Designations Alternative is depicted in Exhibit 5-1.

### Table 5-1: Development within the Existing Land Use Designations Alternative Summary

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Land Use</th>
<th>Acres</th>
<th>Dwelling Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development within the Existing Land Use Designations Alternative</td>
<td>Residential (North Bank)</td>
<td>15.4</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>Materials Recycling and Backfilling/Sand and Gravel</td>
<td>77.3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Santiago Creek Greenway Open Space</td>
<td>16.5</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>109.2</strong></td>
<td><strong>77</strong></td>
</tr>
<tr>
<td>Proposed Project</td>
<td>Residential</td>
<td>40.7</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>Santiago Creek Greenway Open Space/Passive Green Area</td>
<td>68.5</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>109.2</strong></td>
<td><strong>128</strong></td>
</tr>
</tbody>
</table>

Source: FCS, 2016.

1 The No Project Alternative/Existing Land Use Designations Alternative corresponds to Alternative F in the Pre-Development Agreement (PDA). Refer to Section 2, Project Description for further discussion of the PDA.
5.3.1 - Impact Analysis

Aesthetics, Light, and Glare

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. The addition of residential units on 15.4 acres on the north bank of Santiago Creek and the existing 77.3 acres of resource extraction on the south bank represents a net increase in development and disturbance relative to the proposed project, which would result in greater visual change and more sources of light and glare. In contrast, the proposed project would avoid any significant changes to the north bank of Santiago Creek and 68.5 acres of open space overall and, thus, would not alter the existing visual or light and glare conditions of these areas. Therefore, the Development within the Existing Land Use Designations Alternative would have greater aesthetics, light, and glare impacts than the proposed project.

Agriculture Resources and Forest Resources

There are no agriculture or forest resources on the project site. Therefore, the Development within the Existing Land Use Designations Alternative would have impacts on agriculture resources and forest resources similar to the proposed project.

Air Quality

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net decrease in development activity relative to the proposed project and, thus, fewer construction emissions of criteria pollutants would occur. Additionally, this alternative would generate 839 fewer daily trips, which would result in fewer operational emissions of criteria pollutants. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer air quality impacts than the proposed project.

Biological Resources

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net increase in disturbance relative to the proposed project, including to the most biologically sensitive areas on the north bank of Santiago Creek. In contrast, the proposed project would avoid any disturbance to the north bank of Santiago Creek and, thus, would not disturb any biological resources within this area. Therefore, the Development within the Existing Land Use Designations Alternative would have greater biological resources impacts than the proposed project.

Cultural Resources

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net increase
in development and disturbance relative to the proposed project, particularly within the undisturbed areas on the north side of Santiago Creek. As noted in Section 3.5, Cultural Resources, the north side of Santiago Creek that has exposures of undifferentiated deposits of the Oligo-Miocene Sespe/Vaqueros Formations; these exposures have marine and non-marine components. In contrast, the proposed project would avoid any disturbance to the north bank of Santiago Creek and, thus, would not disturb any cultural resources within this area. Therefore, the Development within the Existing Land Use Designations Alternative would have greater cultural resources impacts than the proposed project.

Geology and Soils

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net increase in development and disturbance relative to the proposed project and, thus, greater potential for exposure to seismic hazards and the potential for erosion. In contrast, the proposed project would only develop and disturb 40.2-acres within the current resource extraction area and conserve the north side of Santiago Creek as open space. Therefore, the Development within the Existing Land Use Designations Alternative would have greater geology and soils impacts than the proposed project.

Greenhouse Gas Emissions

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net decrease in development activity relative to the proposed project and, thus, fewer construction emissions of greenhouse gas (GHG) emissions would occur. Additionally, this alternative would generate 839 fewer daily trips, which would result in fewer operational emissions of GHG emissions. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer GHG emissions impacts than the proposed project.

Hazards and Hazardous Materials

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Because the resource extraction operation would continue, no mitigation for soil vapors (trichloroethylene and methane) or petroleum-impacted soil would be implemented since these conditions do not pose a safety risk to this land use activity. Furthermore, both the north side of Santiago Creek and the Mara Brandman Arena do not contain any existing land use activities that involve the regular use of large qualities of hazardous materials and are not listed on hazardous materials databases; thus, they are suitable to support new residential development. Therefore, the Development within the Existing Land Use Designations Alternative would have hazards and hazardous materials impacts similar to the proposed project.
Hydrology and Water Quality
The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction and backfilling activities on 77.3 acres of the project site. The existing resource extraction and backfilling activities would continue to discharge into the Handy Creek storm drain. The residential development would increase hydrology and water quality impacts north of Santiago Creek, as the proposed project proposes Greenway Open Space north of Santiago Creek and moves residential development to the south side of Santiago Creek. However, while the increase in residential development would create greater impacts north of Santiago Creek, the extraction and backfilling activities have a current grading permit, any change, update, or renewal of the permit would need to be reviewed and approved as part of the permit process to ensure water quality compliance. Therefore, Development within the Existing Land Use Activities Alternative would have hydrology and water quality impacts similar to the proposed project.

Land Use and Planning
The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. This alternative would maintain the existing General Plan and zoning for the project site, whereas the proposed project would amend the existing land use designations. Although the proposed amendments were found to be compatible with the General Plan, Municipal Code, and surrounding land uses, this alternative would avoid the need to do so. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer land use and planning impacts than the proposed project.

Mineral Resources
The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. This alternative would retain 71 percent of the site for resource extraction activities. Thus, this alternative would lessen the severity of impacts associated with the loss of mineral resources of statewide or local importance. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer mineral resource impacts than the proposed project.

Noise
The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Under this Alternative, the north bank of Santiago Creek would see an increase in noise levels from construction compared with the proposed project, which does not place development in this area. However, overall, this represents a net decrease in development activity relative to the proposed project and, thus, less construction noise would occur. Additionally, this alternative would generate 839 fewer daily trips, which would result in slightly less roadway noise. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer noise impacts than the proposed project.
Population and Housing

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units within the project site, a net decrease of 66 dwelling units relative to the proposed project. The reduction in dwelling units would decrease the population growth attributable to this alternative by 195 persons relative to the proposed project. Additionally, both the portion of the project site that would support residential uses under this alternative and the Mara Brandman Arena are designated for residential uses, and, therefore, this population increase would be considered “planned growth.” Therefore, the Development within the Existing Land Use Designations Alternative would have fewer population and housing impacts than the proposed project.

Public Services

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units within the project site, a net decrease of 66 dwelling units relative to the proposed project. The reduction in dwelling units would reduce the population growth attributable to this alternative by 195 persons relative to the proposed project. This would result in a decrease in demand for fire, police, schools, parks, and other public facilities. Furthermore, the existing resource extraction operation, which has negligible demand for public services, would continue as a land use activity. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer public services impacts than the proposed project.

Recreation

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units within the project site, a net decrease of 66 dwelling units relative to the proposed project. The reduction in dwelling units would reduce the population growth attributable to this alternative by 195 persons relative to the proposed project. This would result in a decrease in demand for recreation. Furthermore, the proposed project’s recreational uses would not be developed under this alternative. While this would result in fewer new recreational opportunities, it would also avoid creating any impacts associated with the development of these facilities. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer recreation impacts than the proposed project.

Transportation

The Development within the Existing Land Use Designations Alternative consists of developing 40 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Table 5-2 summarizes the trip generation associated with this alternative. As shown in the table, this alternative would result in a net decrease of 839 daily trips, a net decrease of 65 AM peak-hour trips, and a net decrease of 88 PM peak-hour trips. The proposed project was found to contribute to deficient operations at one intersection (East Santiago Canyon Road/Orange Park Boulevard) during the PM peak-hour and would implement mitigation in form of fair-share payments to fund improvements to restore operations to acceptable levels. Thus, this alternative would implement similar mitigation and yield a similar conclusion; however, because it generates fewer trips during the impacted peak-hour, it would lessen the severity of impacts.
Table 5-2: Development within the Existing Land Use Designations Alternative Trip Generation Comparison

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Daily</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development within the Existing Land Use Designations Alternative</td>
<td>380</td>
<td>31</td>
<td>40</td>
</tr>
<tr>
<td>Proposed Project</td>
<td>1,219</td>
<td>96</td>
<td>128</td>
</tr>
<tr>
<td>Difference</td>
<td>(839)</td>
<td>(65)</td>
<td>(88)</td>
</tr>
</tbody>
</table>

Note:
The Development within the Existing Land Use Designations Alternative excludes existing materials and recycling trip generation as this is an existing use that would be maintained. Additionally, the 16.5-acre open space area along Santiago Creek would not generate any trips because it would not be publicly accessible.


This alternative would also require improvements to the East Santiago Canyon Road/Nicky Way intersection, which would provide access to the resource extraction operations on the project site. Additionally, improvements would be required to Mabury Drive to allow for access to the residential uses developed on the north side of Santiago Creek.

Overall, this alternative would generate fewer trips than the proposed project. Therefore, the Development within the Existing Land Use Designations Alternative would have fewer transportation impacts than the proposed project.

**Tribal Cultural Resources**

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net increase in development and disturbance relative to the proposed project, particularly within the undisturbed areas on the north side of Santiago Creek. In contrast, the proposed project would avoid any disturbance to the north bank of Santiago Creek and, thus, would not disturb any potential tribal cultural resources within this area. Therefore, the Development within the Existing Land Use Designations Alternative would have greater tribal cultural resources impacts than the proposed project.

**Utilities and Service Systems**

The Development within the Existing Land Use Designations Alternative consists of developing 77 dwelling units within the project site, a net decrease of 72 dwelling units relative to the proposed project. The reduction in dwelling units would decrease the population growth attributable to this alternative by 195 persons relative to the proposed project. This would result in less demand than the proposed project for water, wastewater, solid waste, electricity, and natural gas.
For storm drainage, the net increase in development and disturbance relative to the proposed project would have a greater potential for additional runoff to be added to downstream waterways. In particular, the existing resource extraction activities would continue to discharge into the Handy Creek storm drain, which lacks sufficient capacity for a 100-year storm event. In contrast, the proposed project would result in a net decrease in discharge to the Handy Creek storm drain, which would serve to lessen the severity of this existing deficient condition.

Therefore, the Development within the Existing Land Use Designations Alternative would have fewer utilities and service system impacts than the proposed project.

5.3.2 - Conclusion

The Development within the Existing Land Use Designations Alternative would increase the severity of the proposed project’s aesthetics, light, and glare; biological resources; cultural resources; geology and soils; tribal cultural resources; and hydrology and water quality. However, it would lessen the severity of the proposed project’s air quality, GHG, land use, mineral resources, noise, population and housing, public services, recreation, transportation, and utilities and service systems impacts. This alternative would yield similar impacts for all other topics.

The Development within the Existing Land Use Designations Alternative would advance some, but not all of the project objectives. This alternative would advance the objectives that concern clustering residential development in the most suitable areas of the project site; and promoting land use compatibility with surrounding land uses. However, none of these objectives would be advanced to the same degree as the proposed project because (1) fewer dwelling units would be developed; (2) the resource extraction land use activities would be retained; (3) less open space would be provided; and (4) no public recreational facilities would be provided.

Furthermore, this alternative would not advance the objectives that concern facilitating the redevelopment of an unsightly, underused resource extraction site; guiding the transition of an infill site with a Specific Plan; protecting Santiago Creek by abating the remnants of the resource extraction activities; strategically locating the adjoining Villa Park Landfill and the proposed residential uses; and developing a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists.

5.4 - Alternative 2—No Project Alternative/Existing Land Use Activities Alternative

The No Project Alternative/Existing Land Use Activities Alternative consists of the continuation of the existing sand and gravel operations on approximately 77.3 acres of the project site. Approximately 40 acres between Santiago Creek and East Santiago Canyon Road are characterized by soil piles and berms, unpaved roads. An approximately 5-acre area near East Santiago Canyon Road supports a materials recycling operation that includes apparatus for crushing boulders, bricks, rocks, and similar materials for recycling. Since 2015, backfilling operations have been limited to 15 consecutive business days in any 6-month period; this alternative would allow backfilling operations to resume.
year-round as allowed by the current grading permit. The project site would remain inaccessible to the public under this alternative.

5.4.1 - Impact Analysis

Aesthetics, Light, and Glare

The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net increase in disturbance relative to the proposed project, because the 77.3-acre backfilling operations would resume year-round as allowed by the grading permit and the proposed project would disturb only 40.7-acres, which would result in greater visual change and more sources of light and glare. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have greater aesthetics, light, and glare impacts than the proposed project.

Agriculture Resources and Forest Resources

There are no agriculture or forest resources on the project site. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have no impacts on agriculture resources and forest resources similar to the proposed project.

Air Quality

The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. Compared with the continuation of backfilling operations as allowed by the current grading permit that would take place under the continued resource extraction activities, this alternative would generate 533 fewer daily trips, which would result in fewer operational emissions of criteria pollutants. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer air quality impacts than the proposed project.

Biological Resources

The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on the full 77.3 acres of the project site. Overall, this represents a net increase in disturbance relative to the proposed project, as the proposed project would create 68.5-acres of open space and only disturb 40.7-acres. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have greater biological resources impacts than the proposed project.

Cultural Resources

The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. Since current resource extraction activities have already disturbed the 77.3 acres, the No Project Alternative/Existing Land Use Activities Alternative would have fewer cultural resources impacts than the proposed project.
Geology and Soils
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. Since the No Project Alternative/Existing Land Use Activities Alternative does not include residential development, there would be fewer impacts related to seismic hazards. However, overall, this represents a net increase in disturbance relative to the proposed project and, thus, greater potential for exposure to seismic hazards and the potential for erosion. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have greater geology and soils impacts than the proposed project.

Greenhouse Gas Emissions
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. This alternative would generate 533 fewer daily trips, which would result in fewer operational emissions of GHG emissions. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer GHG emissions impacts than the proposed project.

Hazards and Hazardous Material
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. Because the resource extraction operation would continue, no mitigation for soil vapors (trichloroethylene and methane) or petroleum-impacted soil would be implemented since these conditions do not pose a safety risk to this land use activity. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would result in hazards and hazardous materials impacts similar to the proposed project.

Hydrology and Water Quality
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. The existing resource extraction and backfilling activities would continue to discharge into the Handy Creek storm drain. The extraction and backfilling activities have a current grading permit, any change, update, or renewal of the permit would need to be reviewed and approved as part of the permit process to ensure water quality compliance. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer hydrology and water quality impacts than the proposed project.

Land Use and Planning
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. This alternative would maintain the existing City of Orange General Plan and zoning for the project site, whereas the proposed project would amend the existing land use designations. Although the proposed amendments were found to be compatible with the City of Orange General Plan, Municipal Code, and surrounding land uses, this alternative would avoid the need to do so. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer land use and planning impacts than the proposed project.
Mineral Resources
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. This alternative would retain 71 percent of the site for resource extraction activities; hence, extraction and backfilling operations would resume year-round as allowed by the grading permit. Thus, this alternative would lessen the severity of impacts associated with the loss of mineral resources of statewide or local importance. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer mineral resource impacts than the proposed project.

Noise
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. Overall, this represents a net increase in disturbance relative to the proposed project. This alternative would generate 533 fewer daily trips than the proposed project, which would result in slightly less roadway noise. However, this alternative would result in a greater number of operational heavy-duty vehicles on-site, since extraction and backfilling operations would resume year-round as allowed by the grading permit. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have greater impacts than the proposed project.

Population and Housing
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. No dwelling units would be built on the project site under this alternative. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer population and housing impacts than the proposed project.

Public Services
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. No dwelling units would be built on the project site under this alternative. This would result in a decrease in demand for fire, police, schools, parks, and other public facilities. Furthermore, the existing resource extraction operation, which has negligible demand for public services, would continue as a land use activity. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer public services impacts than the proposed project.

Recreation
The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. No dwelling units would be built on the project site under this alternative. This would result in a decrease in demand for recreation. Furthermore, the proposed project’s recreational uses would not be developed under this alternative. While this would result in fewer new recreational opportunities, it would also avoid creating any impacts associated with the development of these facilities. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer recreation impacts than the proposed project.
Transportation and Traffic

The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. Table 5-3 summarizes the trip generation associated with this alternative. As shown in the table, this alternative would result in a net decrease of 533 daily trips, a net decrease of 33 AM peak-hour trips, and a net decrease of 96 PM peak-hour trips.

The proposed project was found to contribute to deficient operations at one intersection (East Santiago Canyon Road/Orange Park Boulevard) during the PM peak-hour and would implement mitigation in form of fair-share payments to fund improvements to restore operations to acceptable levels. Because this alternative generates fewer trips, it would result in less severe impacts. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have fewer transportation impacts than the proposed project.

Table 5-3: No Project Alternative/Existing Land Use Activities Alternative Trip Generation Comparison

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Net Change in Trips</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Daily</td>
<td>AM Peak</td>
</tr>
<tr>
<td>No Project Alternative/Existing Land Use Activities Alternative</td>
<td>686</td>
<td>63</td>
<td>32</td>
</tr>
<tr>
<td>Proposed Project</td>
<td>1,219</td>
<td>96</td>
<td>128</td>
</tr>
<tr>
<td>Difference</td>
<td>(533)</td>
<td>(33)</td>
<td>(96)</td>
</tr>
</tbody>
</table>

Source: Elfend & Associates, 2017

Tribal Cultural Resources

The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. As the current resource extraction activities have already disturbed the 77.3 acres, the No Project Alternative/Existing Land Use Activities Alternative would have tribal cultural resources impacts similar to the proposed project.

Utilities and Service Systems

The No Project Alternative/Existing Land Use Activities Alternative consists of maintaining the existing resource extraction activities on 77.3 acres of the project site. No dwelling units would be built on the project site under this alternative. This would result in less demand for water, wastewater, solid waste, electricity, and natural gas. In particular, the existing resource extraction activities would continue to discharge into the Handy Creek storm drain, which lacks sufficient capacity for a 100-year storm event. In contrast, the proposed project would result in a net decrease in discharge to the Handy Creek storm drain, which would serve to lessen the severity of this existing deficient condition. Therefore, the No Project Alternative/Existing Land Use Activities Alternative would have greater utilities and service system impacts than the proposed project.
5.4.2 - Conclusion

The No Project Alternative/Existing Land Use Activities Alternative would increase the severity of the proposed project’s aesthetics, light, and glare; biological resources; cultural resources; geology and soils; noise and utilities and service systems impacts. However, it would lessen the severity of the proposed project’s air quality, GHGs, hydrology and water quality, mineral resources, population and housing, public services, recreation, and transportation and traffic impacts. This alternative would yield similar impacts for agricultural resources and hazards and hazardous materials.

The No Project Alternative/Existing Land Use Activities Alternative would advance some, but not all, of the project objectives. This alternative would advance the objectives that concern positively contributing to the local economy through ongoing mineral extraction. However, none of the objectives would be advanced to the same degree as the proposed project because (1) no dwelling units would be developed; (2) the resource extraction land use activities would be retained; (3) less open space would be provided; and (4) no public recreational facilities would be provided.

Furthermore, this alternative would not advance the objectives that concern facilitating the redevelopment of an unsightly, underused resource extraction site; guiding the transition of an infill site with a Specific Plan; protecting Santiago Creek by abating the remnants of the resource extraction activities; strategically locating the adjoining Villa Park Landfill and the proposed residential uses; and developing a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists.

5.5 - Alternative 3—Collaborative Group

The Collaborative Group Alternative was developed in response to meetings between the Applicant representatives and the Collaborative Group, consisting of representatives from Orange Park Acres, Mabury Ranch, and The Reserve.

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings and would develop the residential on approximately 0.7 less acres than the proposed project.

This alternative would not permit all items listed in the preface to the Draft EIR, which are a part of the proposed project. These items include the following improvements and related considerations:

1. The Specific Plan and associated project accommodates a maximum number of 128 single-family detached lots located in the southerly portion of the property and will consist of housing types and lot sizes compatible with the surrounding neighborhoods as depicted in the Trails at Santiago Creek Specific Plan, Exhibits 3.1-3.4 and consistent with the development standards and guidelines set forth in the Specific Plan.

2. The implementation of the Specific Plan and associated project will fund up to $1,000,000.00 for traffic improvements to widen East Santiago Canyon Road and restripe Cannon Road prior to the issuance of the first Certificate of Occupancy of any housing units for the project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.1, Areas of Traffic Congestion—Pre-

3. The implementation of the Specific Plan and associated project will fund approximately up to a maximum of $4,100,000.00 in landscape and other improvements for the Santiago Creek Greenway. Said Improvements are to be completed or funded prior to the issuance of the 60th Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Section 4.2.4, Trails, Open Space and Recreation Plan, and Exhibit 4.14, Preliminary Greenway, Open Space and Trails Plan.

4. The implementation of the Specific Plan and associated project will fund $1,000,000.00 to be used for in local area-wide equestrian trail purposes prior to the issuance of the first Certificate of Occupancy for the project.

5. The implementation of the Specific Plan and associated project will finance and fund the City’s acquisition of the Ridgeline Property, which will provide the community an additional 50 acres of public open space to the issuance of the first Certificate of Occupancy for the Project. Please refer to the Trails at Santiago Creek Specific Plan, Exhibit 4.4, Sully Miller, Arena and Ridgeline Properties.

6. The implementation of the Specific Plan and associated project will provide $2,000,000.00 for equestrian and recreational purposes in the East Orange Area as determined by the City prior to the issuance of the first Certificate of Occupancy for the project.

This alternative would require the same discretionary permits as the proposed project.

Table 5-4 summarizes the Collaborative Group Alternative. The Collaborative Group Alternative is depicted in Exhibit 5-2.

Table 5-4: Collaborative Group Alternative Summary

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Land Use</th>
<th>Acres</th>
<th>Dwelling Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative Group Alternative</td>
<td>Residential</td>
<td>40</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Open Space</td>
<td>69.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>109.2</td>
<td>47</td>
</tr>
<tr>
<td>Proposed Project</td>
<td>Residential</td>
<td>40.7</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>Santiago Creek Greenway Open Space/Passive Green Area</td>
<td>68.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>109.2</td>
<td>128</td>
</tr>
</tbody>
</table>

Source: FCS, 2016.
5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

The Collaborative Group Alternative consists of 47 lots and 42 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop the residential on approximately 0.7 less acres than the proposed project. As the Collaborative Group Alternative would only develop residential uses on approximately 0.7 less acres than the proposed project, a marginal amount, impacts to aesthetics, light, and glare would be similar to the proposed project.

Agriculture Resources and Forest Resources

There are no agriculture or forest resources on the project site. Therefore, the Collaborative Group Alternative would have impacts on agriculture resources and forest resources similar to the proposed project.

Air Quality

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop residential property on approximately 0.7 less acres than the proposed project; therefore, construction emissions of this alternative are similar to the proposed project. However, this alternative would generate 774 fewer daily trips, which would result in fewer operational emissions of criteria pollutants. Therefore, the Collaborative Group Alternative would have fewer air quality impacts than the proposed project.

Biological Resources

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop residential uses on approximately 0.7 less acres than the proposed project. As the Collaborative Group Alternative would only develop residential on approximately 0.7 less acres less than the proposed project, a marginal amount, impacts to biological resources would be similar to the proposed project.

Cultural Resources

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop residential uses on approximately 0.7 less acres than the proposed project. As the Collaborative Group Alternative would only develop residential on approximately 0.7 less acres less than the proposed project, a marginal amount, impacts to cultural resources would be similar to the proposed project.
Geology and Soils

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop residential uses on approximately 0.7 less acres than the proposed project. As the Collaborative Group Alternative would only develop residential on approximately 0.7 less acres less than the proposed project, a marginal amount, impacts to geology and soils would be similar to the proposed project.

Greenhouse Gas Emissions

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop residential uses on approximately 0.7 less acres than the proposed project; therefore, construction emissions of this alternative are similar than the proposed project. However, this alternative would generate 774 fewer daily trips, which would result in fewer operational emissions of criteria pollutants. Therefore, the Collaborative Group Alternative would have fewer air quality impacts than the proposed project.

Hazards and Hazardous Materials

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop residential uses on approximately 0.7 less acres than the proposed project. As the Collaborative Group Alternative would only develop residential on approximately 0.7 less acres less than the proposed project, a marginal amount that would still require similar mitigation measures from the residential development envelope. Impacts to hazards, and hazardous materials, would be similar to the proposed project.

Hydrology and Water Quality

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop the residential uses on approximately 0.7 less acres than the proposed project. As the Collaborative Group Alternative would only develop residential on approximately 0.7 less acres less than the proposed project, a marginal amount would still require similar mitigation measures from the residential development envelope. Impacts to hydrology and water quality would be similar to the proposed project.

Land Use and Planning

This alternative would require discretionary permits similar to those required for the proposed project, a General Plan Amendment, and Rezone. Therefore, the Collaborative Group Alternative would have land use and planning impacts similar to the proposed project.
Mineral Resources

This alternative would develop the area currently designated for resource extraction activities, to the same extent as the proposed project. Therefore, the Collaborative Group Alternative would have mineral resource impacts similar to the proposed project.

Noise

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop the residential on approximately 0.7 less acres than the proposed project. This alternative would generate 774 fewer daily trips from having 81 fewer homes than the proposed project, which would result in less roadway noise. Therefore, the Collaborative Group Alternative would have fewer noise impacts than the proposed project.

Population and Housing

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings. The reduction in dwelling units would decrease the population growth attributable to this alternative by 243 persons relative to the proposed project. Therefore, the Collaborative Group Alternative would have fewer population and housing impacts than the proposed project.

Public Services

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings. The reduction in dwelling units would decrease the population growth attributable to this alternative by 243 persons relative to the proposed project. This would result in a decrease in demand for fire, police, schools, parks, and other public facilities. Therefore, the Collaborative Group Alternative would have fewer public services impacts than the proposed project.

Recreation

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings. The reduction in dwelling units would decrease the population growth attributable to this alternative by 243 persons relative to the proposed project. This would result in a decrease in demand for recreation. Therefore, the Collaborative Group Alternative would have fewer recreation impacts than the proposed project.

Transportation

The Collaborative Group Alternative consists of 47 lots and 47 dwelling units of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway
Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings. Table 5-5 summarizes the trip generation associated with this alternative. As shown in the table, this alternative would result in a net decrease of 774 daily trips, a net decrease of 61 AM peak-hour trips, and a net decrease of 81 PM peak-hour trips.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Net Change in Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily</td>
</tr>
<tr>
<td>Collaborative Group Alternative</td>
<td>445</td>
</tr>
<tr>
<td>Proposed Project</td>
<td>1,219</td>
</tr>
<tr>
<td>Difference</td>
<td>(774)</td>
</tr>
</tbody>
</table>


This alternative would require the same transportation improvements as the proposed project, which was found to contribute to deficient operations at one intersection (East Santiago Canyon Road/Orange Park Boulevard) during the PM peak-hour, and would implement mitigation in the form of fair-share payments to fund improvements to restore operations to acceptable levels. As such, this alternative would require similar mitigation as the proposed project.

Overall, this alternative would generate fewer trips than the proposed project. Therefore, the Collaborative Group Alternative would have fewer transportation impacts than the proposed project.

**Tribal Cultural Resources**

The Collaborative Group Alternative consists of 47 lots of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings, and would develop the residential uses on approximately 0.7 less acres than the proposed project. Overall, this represents a net marginal decrease in development and disturbance relative to the proposed project. The Collaborative Group alternative would require mitigation similar to the proposed project. Therefore, the Collaborative Group Alternative would have similar tribal cultural resources impacts than the proposed project.

**Utilities and Service Systems**

The Collaborative Group Alternative consists of 47 lots of varying sizes, on approximately 40 acres. The remaining 69.2 acres would be turned into the Santiago Greenway Open Space area. Overall, the Collaborative Group Alternative would have 81 fewer dwellings. The reduction in dwelling units would decrease the population growth attributable to this alternative by 243 persons relative to the proposed project. This would result in less demand than the proposed project for water, wastewater, solid waste, electricity, and natural gas.

For storm drainage, the net decrease in development and disturbance relative to the proposed project would have a greater potential for additional runoff to be added to downstream waterways.
Therefore, overall, the Collaborative Group Alternative would have fewer utilities and service system impacts than the proposed project.

5.5.2 - Conclusion

The Collaborative Group Alternative would lessen the severity of the proposed project’s air quality, GHG, population and housing, noise, public services, recreation, transportation, and utilities and service systems impacts. This alternative would yield similar impacts for all other topics.

The Collaborative Group Alternative would advance some, but not all of the project objectives. This alternative would advance the objectives that concern clustering residential development in the most suitable areas of the project site; and promoting land use compatibility with surrounding land uses.

This alternative would not advance the objectives that concern guiding the transition of an infill site with a Specific Plan; developing a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists; and would not include the Development Agreement benefits to the community.

5.6 - Alternative 4—122-Unit

The 122-Unit Alternative was developed in response to a series of meetings between the Applicant representatives and the Collaborative Group, consisting of representatives from Orange Park Acres, Mabury Ranch, and The Reserve.

The 122-Unit Alternative consists of 122 lots with an average lot size of 11,200-square-feet on 40.9 acres of the project site. The remaining 68.3 acres of the project site would be turned into 68.3 acres of open space consisting of 40.2 acres of Greenway Open Space, and 28.1 acres of Grasslands Open Space. This alternative differs from the proposed project in that it would develop ten 0.5-acre equestrian lots on the eastern border of the residential envelope and twenty-four 10,000-square-foot lots adjacent to East Santiago Canyon Road. Moreover, in response to input, the Applicant representatives received during meetings with the Collaborative Group, this alternative proposes larger lot sizes adjacent to The Preserve and portions of Orange Park Acres.

Table 5-6 summarizes the residential lots of the 122-Unit Alternative.

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Number of Lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half-Acre Equestrian</td>
<td>10</td>
</tr>
<tr>
<td>80 x 125 (10,000 square feet)</td>
<td>24</td>
</tr>
<tr>
<td>80 x 100 (8,000 square feet)</td>
<td>29</td>
</tr>
<tr>
<td>70 x 115 (8,000 square feet)</td>
<td>43</td>
</tr>
<tr>
<td>65 x 125 (8,000 square feet)</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: Milan REI X, 2018
Overall, the 122-Unit Alternative would have six less dwellings than the proposed project, but would develop, approximately, an additional 0.2 acres of the project site for residential, reducing open space by approximately 0.2 acres in comparison to the proposed project.

Additionally, this alternative would have $1,000,000 less in local trail improvements from the Development Agreement.

This alternative would require the same discretionary permits as the proposed project.

Table 5-7 summarizes the 122-Unit Alternative. The 122-Unit Alternative is depicted in Exhibit 5-3.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Land Use</th>
<th>Acres</th>
<th>Dwelling Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>122-Unit Alternative</td>
<td>Residential</td>
<td>40.9</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>Santiago Creek Greenway Open Space/Passive Green Area</td>
<td>68.3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>109.2</td>
<td>122</td>
</tr>
<tr>
<td>Proposed Project</td>
<td>Residential</td>
<td>40.7</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>Santiago Creek Greenway Open Space/Passive Green Area</td>
<td>68.5</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>109.2</td>
<td>128</td>
</tr>
</tbody>
</table>


5.6.1 - Impact Analysis

Aesthetics, Light, and Glare

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The development envelope of the residential area is greater than the proposed project, developing residential on 0.2 acres more than the proposed project. Additionally, there would be six less dwelling units than the proposed project, however, the dwelling unit reduction would only negligibly reduce impacts to aesthetics, light, and glare. Therefore, impacts to aesthetics, light, and glare would be similar to the proposed project.

Agriculture Resources and Forest Resources

There are no agriculture or forest resources on the project site. Therefore, the 122-Unit Alternative would have impacts on agriculture resources and forest resources similar to the proposed project.

Air Quality

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space.
Overall, this alternative would have six less dwelling units, 0.2 acres of more residential, and 0.2 acres of less open space; therefore, construction emissions of this alternative are similar to the proposed project. However, this alternative would generate 62 fewer daily trips, which would result in fewer operational emissions of criteria pollutants. Therefore, the 122-Unit Alternative would have fewer air quality impacts than the proposed project.

**Biological Resources**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space on the same development envelope as the proposed project. The development envelope of the residential area is greater than the proposed project, developing residential on 0.2 acres more than the proposed project. However, the 0.2-acre expansion of residential would not impact sensitive biological communities. Therefore, the 122-Unit Alternative would have similar biological resources impacts to the proposed project.

**Cultural Resources**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The development envelope of the residential area is greater than the proposed project, with residential development on 0.2 acres more than the proposed project. As such, there could be impacts to cultural resources and mitigation measures similar to the proposed project would be required. Therefore, the 122-Unit Alternative would have cultural resources impacts similar to the proposed project.

**Geology and Soils**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The development envelope of the residential area is greater than the proposed project, with residential development on 0.2 acres more than the proposed project. As such, there could be impacts to geology and soils and mitigation measures similar to the proposed project would be required. Therefore, the 122-Unit Alternative would have similar geology and soils impacts than the proposed project.

**Greenhouse Gas Emissions**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. Overall, this alternative would have seven less dwelling units, 0.2 acres more residential, and 0.2 acres less open space; therefore, construction emissions of this alternative would be similar to the proposed project. However, this alternative would generate 62 fewer daily trips, which would result in fewer operational emissions of criteria pollutants. Therefore, the 122-Unit Alternative would have fewer air quality impacts than the proposed project.

**Hazards and Hazardous Materials**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. This alternative
would have similar impacts to the proposed project and as such, would require similar mitigation measures. Therefore, the 122-Unit Alternative would have hazards and hazardous materials impacts similar to the proposed project.

**Hydrology and Water Quality**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The development envelope of the residential area is greater than the proposed project, developing residential on 0.2 acres more than the proposed project. As such, there could be more impacts to hydrology and water quality and mitigation measures similar to the proposed project would be required. Therefore, 122-Unit Alternative would have hydrology and water quality impacts similar to the proposed project.

**Land Use and Planning**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. This alternative would require discretionary permits similar to those required for the proposed project, a General Plan Amendment, and Rezone. Therefore, the 122-Unit Alternative would have land use and planning impacts similar to the proposed project.

**Mineral Resources**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. This alternative would develop the area currently designated for resource extraction activities, to the same extent as the proposed project. Therefore, the 122-Unit Alternative would have mineral resource impacts similar to the proposed project.

**Noise**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. As such, construction noise impacts would be similar and operational noise impacts would be negligible with the reduction of six dwelling units. Therefore, the 122-Unit Alternative would have noise impacts similar to the proposed project.

**Population and Housing**

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The reduction of six dwelling units would decrease the population growth attributable to this alternative by 20 persons relative to the proposed project; population growth from the 122-Unit Alternative would be similar to the proposed project. Therefore, the 122-Unit Alternative would have population and housing impacts similar to the proposed project.
Public Services
The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The reduction of six dwelling units would decrease the population growth attributable to this alternative by 20 persons relative to the proposed project. This would result in a similar demand for fire, police, schools, parks, and other public facilities. Therefore, the 122-Unit Alternative would have public services impacts similar to the proposed project.

Recreation
The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The reduction of six dwelling units would decrease the population growth attributable to this alternative by 20 persons relative to the proposed project. This would result in a similar demand for recreation. Therefore, the 122-Unit Alternative would have recreation impacts similar to the proposed project.

Transportation
The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. Table 5-8 summarizes the trip generation associated with this alternative. As shown in the table, this alternative would result in a net decrease of 62 daily trips, a net decrease of 2 AM peak-hour trips, and a net decrease of 6 PM peak-hour trips.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Net Change in Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily</td>
</tr>
<tr>
<td>122-Unit Alternative</td>
<td>1,157</td>
</tr>
<tr>
<td>Proposed Project</td>
<td>1,219</td>
</tr>
<tr>
<td>Difference</td>
<td>(62)</td>
</tr>
</tbody>
</table>


This alternative would require the same transportation improvements as the proposed project: the proposed project was found to contribute to deficient operations at one intersection (East Santiago Canyon Road/Orange Park Boulevard) during the PM peak-hour, and would implement mitigation in form of fair-share payments to fund improvements to restore operations to acceptable levels. As such, this alternative would require the same mitigation as the proposed project.

Therefore, the 122-Unit Alternative would have transportation impacts similar to the proposed project.
Tribal Cultural Resources

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. The development envelope of the residential area is greater than the proposed project, developing residential on 0.2 acres more than the proposed project. As such, there could be impacts to tribal cultural resources and mitigation measures similar to the proposed project would be required. Therefore, the 122-Unit Alternative would have tribal cultural resources impacts similar to the proposed project.

Utilities and Service Systems

The 122-Unit Alternative consists of a 122-unit residential development on 40.9 acres with an average lot size of 11,200-square-feet. 68.3 acres of the development will remain open space. This alternative would have six less dwelling units than the proposed project. The reduction in dwelling units would decrease the population growth attributable to this alternative by 20 persons relative to the proposed project. This would result in negligible decrease in demand compared to the proposed project for water, wastewater, solid waste, electricity, and natural gas.

For storm drainage, the net increase in development and disturbance relative to the proposed project would have negligible additional runoff to be added to downstream waterways. The 122-Unit Alternative and the proposed project would result in a similar increase in discharge to the Handy Creek storm drain.

Therefore, overall, the 122-Unit Alternative would have utilities and service system impacts similar to the proposed project.

5.6.2 - Conclusion

The 122-Unit Alternative would yield similar impacts to the proposed project for all topics.

The 122-Unit Alternative would advance all of the project objectives, similar to the proposed project. This alternative would advance the objectives that concern guiding the transition of an infill site with a Specific Plan; developing a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists; clustering residential development in the most suitable areas of the project site; and promoting land use compatibility with surrounding land uses.

However, this alternative would have $1,000,000 less in community benefits from the Development Agreement.

5.7 - Environmentally Superior Alternative

The qualitative environmental effects of each alternative in relation to the proposed project are summarized in Table 5-9.
### Table 5-9: Summary of Alternatives

<table>
<thead>
<tr>
<th>Environmental Topic Area</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
<th>Alternative 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics, Light, and Glare</td>
<td>Greater impact</td>
<td>Greater impact</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Agriculture Resources and Forest Resources</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Fewer impact</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>Greater impact</td>
<td>Greater impact</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>Greater impact</td>
<td>Fewer impact</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Geology/Soils</td>
<td>Greater impact</td>
<td>Greater impact</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>Fewer impact</td>
<td>Fewer impact</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>Similar Impacts</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Mineral Resources</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Noise</td>
<td>Fewer impacts</td>
<td>Greater impact</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Population and Housing</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Public Services</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Recreation</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Tribal Cultural Resources</td>
<td>Greater Impacts</td>
<td>Similar Impacts</td>
<td>Similar Impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Transportation and Traffic</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
</tr>
<tr>
<td>Utilities and Service Systems</td>
<td>Fewer impacts</td>
<td>Greater Impact</td>
<td>Fewer impacts</td>
<td>Similar impacts</td>
</tr>
</tbody>
</table>

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

In this case, the No Project Alternative/Existing Land Use Activities Alternative achieves reductions in the severity of proposed project’s impacts across the same number of topical areas. Of the four alternatives, the No Project Alternative/Existing Land Use Activities Alternative achieves the greatest reduction in daily and peak-hour trip generation because it would develop the fewest dwelling units. Therefore, the No Project Alternative/Existing Land Use Activities Alternative is the Environmentally Superior Alternative.

As the No Project Alternative/Existing Land Use Activities Alternative is the Environmentally Superior Alternative, the DEIR must identify an Environmentally Superior Alternative from among the other alternatives that is not a No Project Alternative. In this case, the Collaborative Group Alternative is the environmentally superior alternative as it achieves impact reductions in the severity of Air Quality, GHG Emissions, Noise, Population and Housing, Public Services, Recreation, Transportation
and Traffic, and Utilities and Service Systems; all other topical areas would be similar to the proposed project. The impact reductions to the eight topical areas would be achieved as the Collaborative Group Alternative would develop 81 fewer dwelling units in comparison to the proposed project.

While the Collaborative Group Alternative is the Environmentally Superior Alternative, it would not advance following project objectives: transition of an infill site with a Specific Plan; developing a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists; and would not permit the Development Agreement benefits to the community.

In addition, the Collaborative Group Alternative is not financially feasible.
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SECTION 6: OTHER CEQA CONSIDERATIONS

6.1 - Significant Unavoidable Impacts

California Environmental Quality Act (CEQA) Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented.

Significant and unavoidable impacts identified in this Recirculated Draft Environmental Impact Report (RDEIR), include the following:

- As discussed in Impact AIR-1, the maximum daily construction emissions after the implementation of Mitigation Measures AIR-1a through AIR-1g would continue to exceed the South Coast Air Quality Management District’s (SCAQMD) regional significance thresholds. Because no additional feasible mitigation measures are available, the project’s regional operational emissions of NOX would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

- As discussed in Impact AIR-2, the project’s construction activities are estimated to generate a maximum of 199.47 pounds of NOX per day with implementation of mitigation measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NOX even after the implementation of Mitigation Measures AIR-1a through AIR-1g. The project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions estimates, contained in Appendix F, shows that 196.17 pounds of the 199.47 pounds of NOX are from off-site sources. As previously discussed, the project is anticipated to require up to 275,400 total haul trips during the grading period. Because the exceedance is largely a result of the anticipated haul trips, feasible and enforceable mitigation measures to reduce the impact are limited. Based on the total haul trucks required each day and the fact that specific make and model of haul trucks can vary by contractor and within each contractor fleet, it would not be feasible to mandate the use of specific vehicles to haul soil for the proposed project. Because no additional feasible mitigation measures are available beyond those already quantified in Impact AIR-2, the project’s regional operational emissions of NOX would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation. This represents a significant and unavoidable impact.

- As discussed in Impact AIR-3, the region is non-attainment for the federal and state ozone standards, the state PM10 standards, and the federal and state PM2.5 standards. Therefore, a project that would not exceed the SCAQMD thresholds of significance on a project-level would also not result in a cumulatively considerable contribution to these regional air quality impacts. The impacts from the project would, therefore, be cumulatively less than significant during project operations and significant and unavoidable during project construction.
- As discussed in Impact TRANS-2, while the fair share contribution provided through Mitigation Measure TRANS-2 would mitigate the proposed project’s impacts at the intersection of Orange Park Boulevard/East Santiago Canyon Road, impacts would be significant and unavoidable as the Orange Park Boulevard/East Santiago Canyon Road intersection is not listed in the City of Orange MPAH, or any similar plans.

All additional impacts analyzed within the Draft EIR were found to be less than significant after mitigation or less than significant with no mitigation required.

6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project’s characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2(d)).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

The proposed project would develop 128 dwelling units and, therefore, has the potential to directly induce population growth. Table 6-1 summarizes the population growth attributable to the proposed project.

<table>
<thead>
<tr>
<th>Dwelling Units</th>
<th>Persons per Dwelling Unit</th>
<th>Project Population Growth</th>
<th>City of Orange’s Population</th>
<th>Project Population Growth as a Percentage of City Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>3.07</td>
<td>393</td>
<td>141,420</td>
<td>0.3 percent</td>
</tr>
</tbody>
</table>

Source: FCS, 2016.

As shown in Table 6-1, the proposed project would increase the City’s population by 393 persons, which would represent less than a 1 percent increase relative to the City’s 2016 population estimate of 141,420. This would not be considered a significant population increase.

Furthermore, a portion of the project site is currently designated for residential use by the City of Orange General Plan and Orange Zoning Ordinance. This indicates that the project site has been contemplated to support residential development and, by extension, future population growth.
Although the proposed project would include a General Plan Amendment and Rezone to change the land use designations, these changes would merely bolster the master planning of the site to allow a combination of residential, open space, and recreational uses. Thus, the project site would continue to be designated for residential development.

Lastly, the project site is within an urbanized portion of the City of Orange where infrastructure and utilities including roadways, potable water, sewer, electricity, and natural gas are currently available. Thus, the development of the proposed project would not remove a physical barrier to growth that would allow for unplanned growth to occur.

Impacts would be less than significant.

### 6.3 - Significant Irreversible Changes

The environmental effects of the proposed projects are summarized in Section ES, Executive Summary and are analyzed in detail in Section 3, Environmental Impact Analysis of this EIR.

As mandated by the CEQA Guidelines, the EIR must address any significant irreversible environmental change that would result from implementation of the proposed project. Specifically, pursuant to the CEQA Guidelines (Section 15126.2(c)), such an impact would occur if:

- The project would involve a large commitment of nonrenewable resources;
- Irreversible damage can result from environmental accidents associated with the project; and
- The proposed consumption of resources is not justified (e.g., the project results in the wasteful use of energy).

The proposed project consists of the development of new residential, open space, and recreational uses on a 109-acre site within the Orange City limits. Development activities would involve vegetation removal, grading, and the construction of the residential uses. Construction and demolition debris recycling practices would be expected to allow for the recovery and reuse of building materials such as concrete, lumber, and steel and would limit disposal of these materials, some of which are non-renewable.

Day-to-day activities would involve the use of non-renewable resources such as petroleum and natural gas during operations. The new residential uses would be required to adhere to the latest adopted edition of the California Building Standards Code, which includes a number of standards that would reduce energy demand, water consumption, wastewater generation, and solid waste generation that would collectively reduce the demand for resources. This would result in the emission and generation of less pollution and effluent and lessen the severity of corresponding environmental effects. Although the proposed projects would result in an irretrievable commitment of non-renewable resources, the commitment of these resources would not be significantly inefficient, unnecessary, or wasteful.
The proposed residential uses do not have the potential to cause significant environmental accidents through releases into the environment, as they would not that handle large quantities of hazardous materials.

### 6.4 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical energy-producing facilities, and, therefore, will not create a significant impact on energy resources.

#### 6.4.1 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting State fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and State energy-related laws and plans are discussed below.

### Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California’s energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency
standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least $15.8 billion. The latest Title 24 energy efficiency standards went into effect on January 1, 2017.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the City will review the design and construction components of the project’s Title 24 compliance when specific building plans are submitted.

6.4.2 - Energy Requirements of the Proposed Project

Short-term construction and long-term operational energy consumption are discussed below.

Short-term Construction

The United States Environmental Protection Agency (EPA) regulates nonroad diesel engines that power both mobile equipment (e.g., bulldozers, scrapers, front end loaders, etc.) and stationary equipment (e.g., generators, pumps, compressors, etc.). The EPA has no formal fuel economy standards for nonroad (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emission standards (“Tier 1”) for all new nonroad diesel engines greater than 37 kilowatts (kW) or 50 horsepower. The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing nitrogen oxide (NOx) emissions from these engines by 30 percent. Subsequently, the EPA adopted more stringent emission standards for NOx, hydrocarbons, and particulate matter from new nonroad diesel engines. This program included the first set of standards for nonroad diesel engines less than 37 kW. It also phased in more stringent “Tier 2” emission standards from 2001 to 2006 for all engine sizes and added yet more stringent “Tier 3” standards for engines between 37 and 560 kW (50 and 750 horsepower) from 2006 to 2008. These standards further reduced nonroad diesel engine emissions by 60 percent for NOx and 40 percent for particulate matter (PM) from Tier 1 emission levels. In 2004, EPA issued the Clean Air Nonroad Diesel Rule. This rule cut emissions from nonroad diesel engines by more than 90 percent, and was phased in between 2008 and 2014. These emission standards are intended to promote advanced clean technologies for nonroad diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

The proposed project would entail short-term construction activities that would consume energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools). Construction activities would be subject to applicable regulations such as anti-idling measures, limits on duration of activities, and the use of alternative fuels, thereby reducing energy consumption.

The project site is located within the five-county Los Angeles metropolitan region. Construction equipment is widely available throughout the region and is subject to the aforementioned EPA emissions standards. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region. Therefore, it is expected that construction fuel consumption associated with the project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.
Long-term Operations

Transportation Energy Demand

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards and for revising existing standards. As of December 2014, NHTSA indicated that the fuel economy of passenger vehicles averaged 34.2 miles per gallon and light trucks averaged 26.2 miles per gallon. Fuel economy for heavy trucks averages 6.5 miles per gallon, although this is not regulated by the NHTSA.

Table 6-2 summarizes annual transportation fuel consumption for all project-related trips at buildout. On an annual basis at buildout, project-related trips would consume 276,430 gallons of gasoline or diesel.

Table 6-2: Transportation Fuel Consumption

<table>
<thead>
<tr>
<th>Vehicle Class</th>
<th>Percent of Fleet</th>
<th>Average Fuel Economy</th>
<th>Vehicle Miles Traveled</th>
<th>Fuel Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Vehicles</td>
<td>55.9</td>
<td>34.2</td>
<td>2,819,333</td>
<td>82,437</td>
</tr>
<tr>
<td>Light Trucks/Sport Utility Vehicles</td>
<td>25.4</td>
<td>26.2</td>
<td>1,281,057</td>
<td>48,895</td>
</tr>
<tr>
<td>Heavy Trucks/Other</td>
<td>18.7</td>
<td>6.5</td>
<td>943,140</td>
<td>145,098</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>—</td>
<td>5,043,530</td>
<td>276,430</td>
</tr>
</tbody>
</table>

Note:
Other includes urban buses, school buses, and motorhomes.

Building Energy Demand

Southern California Edison (SCE) provides electrical service and Southern California Gas Company (SoCalGas) provides natural gas service to customers in the City of Orange.

Electricity

SCE, a unit of Edison International, provides electricity to approximately 5 million metered customers within a 50,000 square-mile service area of Southern California. SCE obtains electricity from a variety of sources, including its own generation plants and purchased power from outside sources. SCE has an ownership stake in the Palo Verde Nuclear Generating Station (Arizona) and owns the Big Creek Hydroelectric System (Fresno County). SCE purchases electricity from a variety of outside sources, including natural gas, wind, geothermal, solar, and biomass generation facilities. SCE is currently in the process of implementing several major transmission system improvements in its service area to meet the electrical needs of planned growth.

As discussed in Impact USS-5 in Section 3.17, Utilities and Service Systems, the proposed project is estimated to demand 944,100 kWh of electricity and 5.25 million cubic feet of natural gas at buildout on
an annual basis. All new non-residential development would be subject to the latest adopted edition of the Title 24 energy efficiency standards, which are among the most stringent in the United States.

**Natural Gas**

SoCalGas, a unit of Sempra Energy, provides natural gas service to 5.9 million metered customers within an approximately 20,000 square mile service area located throughout Central and Southern California, excluding San Diego County, Long Beach, and the desert area of San Bernardino County. (The population of the service area is estimated to be 21.6 million.) SoCalGas has interstate pipeline capacity contracts with El Paso Natural Gas Company, Transwestern Pipeline Company, Gas Transmission Northwest, Pacific Gas and Electric Company, and Kern River Gas Transmission Company to supply natural gas. The utility’s system consists of 2,964 miles of transmission and storage pipelines, 49,874 miles of distribution pipelines, and 47,413 miles of service pipelines. SoCalGas operates four underground natural gas storage reservoirs with a combined working capacity of 137 billion cubic feet.

As discussed in Impact USS-5 in Section 3.17, Utilities and Service Systems, the proposed project is estimated to demand 944,100 kWh of electricity and 5.25 million cubic feet of natural gas at buildout on an annual basis. All new non-residential development would be subject to the latest adopted edition of the Title 24 energy efficiency standards, which are among the most stringent in the United States.
SECTION 7: EFFECTS FOUND NOT TO BE SIGNIFICANT

7.1 - Introduction

This section is based on the Notice of Preparation (NOP), dated March 3, 2017, and contained in Appendix C of this Environmental Impact Report (EIR). The NOP was prepared to identify the potentially significant effects of the proposed projects and was circulated for public review between March 3, 2017 and April 3, 2017. In the course of this evaluation, certain impacts were found to be less than significant because the proposed project’s characteristics would not create such impacts. This section provides a brief description of effects found not to be significant or less than significant, based on the NOP comments or more detailed analysis conducted as part of the EIR preparation process. Note that a number of impacts that are found to be less than significant are addressed in the various EIR topical sections (Sections 3.1 through 3.18) to provide more comprehensive discussion of why impacts are less than significant, in order to better inform decision makers and the general public.

7.2 - Effects Found Not To Be Significant

7.2.1 - Aesthetics, Light, and Glare

State Scenic Highways

The nearest officially designated State Scenic Highway to the project site is a 4-mile segment of State Route 91 (SR-91) in Anaheim, located approximately 5 miles to the north. Because of distance and the presence of intervening topography and urban development, the project site is not visible from this segment of SR-91. This condition precludes the possibility of the proposed project adversely affecting scenic resources within view of a State Scenic Highway. No impacts would occur.

7.2.2 - Geology and Soils

Septic or Alternative Wastewater Disposal Systems

The proposed project would be served by sanitary sewer service provided by Orange County Sanitation District; no septic or alternative wastewater disposal systems would be used. This condition precludes the possibility of impacts in this regard. No impacts would occur.

7.2.3 - Hazards and Hazardous Materials

Airports

The project site is 10 miles from the closest airport, Orange County John Wayne Airport. This distance precludes the possibility of exposing persons residing or working in the project vicinity to aviation safety hazards. No impacts would occur.
Private Airstrips
There are no private airstrips in the project vicinity. This condition precludes the possibility of exposing persons residing or working in the project vicinity to aviation safety hazards. No impacts would occur.

7.2.4 - Hydrology and Water Quality
Seiches, Tsunamis, or Mudflows
There are no large inland bodies of water near the project site, a condition that precludes the possibility of seiche inundation. The project site is 16 miles from the Pacific Ocean and therefore is not susceptible to tsunami inundation. The project site does not contain any steep slopes that may be susceptible to mudflows. No impacts would occur.

7.2.5 - Land Use and Planning
Division of an Established Community
The project site contains undeveloped land, remnants of past mining surface operations, and Santiago Creek. There are no dwelling units on the project site. This condition precludes the possibility of division of an established community.

7.2.6 - Noise
Aviation Noise
The project site is 10 miles from the closest airport, Orange County John Wayne Airport. Additionally, there are no private airstrips in the project vicinity. This distance precludes the possibility of exposing persons residing or working in the project vicinity to excessive aviation noise. No impacts would occur.

7.2.7 - Population and Housing
Displacement of Persons or Housing
There are no dwelling units on the project site. This condition precludes the possibility of displacement of persons or housing. No impacts would occur.

7.2.8 - Transportation and Traffic
Air Traffic Patterns
The project site is 10 miles from the closest airport, Orange County John Wayne Airport. This distance precludes the possibility of alterations to air traffic patterns. No impacts would occur.
SECTION 8: PERSONS AND ORGANIZATIONS CONSULTED/LIST OF PREPARERS

8.1 - Persons and Organizations Consulted

8.1.1 - Lead Agency

City of Orange

*Community Development Department*

Community Development Director ................................................................. William Crouch
Senior Planner ................................................................................................. Robert Garcia
Senior Planner ................................................................................................. Chad Ortlieb

*Fire Department*

Captain ............................................................................................................. Ian MacDonald

*Police Department*

CPS/TLO .......................................................................................................... Brad Beyer

8.1.2 - Private Parties and Organizations

City of Orange Sully Miller Liaison Committee

Member ........................................................................................................... Addison Adams
Member ........................................................................................................... Tom Davidson
Member .......................................................................................................... Nick Lall
Member ........................................................................................................... Stephanie Lesinski
Member .......................................................................................................... Dan Martin
Member .......................................................................................................... Theresa Sears

8.2 - List of Preparers

8.2.1 - Lead Agency

City of Orange

*Community Development Department*

Community Development Director ................................................................. William Crouch
Senior Planner ................................................................................................. Robert Garcia
Senior Planner ................................................................................................. Chad Ortlieb

8.2.2 - Lead Consultant

FirstCarbon Solutions

Project Director ............................................................................................... Jason Brandman
Senior Project Manager .................................................................................. Charles Holcombe
Persons and Organizations Consulted/ List of Preparers

City of Orange—Trails at Santiago Creek Specific Plan
Recirculated Draft EIR

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Assistant Project Manager .................................................................................................... Bryan S. Moller
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Senior Air Scientist ................................................................................................................ George Lu
Air Scientist ......................................................................................................................... Ella Li
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8.2.3 - Technical Consultants

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Linscott, Law, and Greenspan
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Senior Transportation Engineer ...................................................................................... Daniel Kloos, P.E.
Transportation Engineer II ............................................................................................... Garrett Milovich

PCR Services
Senior Biologist ................................................................................................................ Maile Tanaka
SECTION 9: REFERENCES


California Department of Conservation. 2015. Radon Potential in Orange County, California.


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FINAL
Environmental Impact Report
Trails at Santiago Creek Specific Plan
City of Orange, Orange County, California

State Clearinghouse No: 2017031020

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Date: September 16, 2019
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Appendix F: Air Quality and Greenhouse Gas Supporting Information
Appendix R: Ordinance No 3915
Appendix S: April 1, 2019 Open Space Greenway Memo
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SECTION 1: INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15088, the City of Orange has evaluated the comments received on the Trails at Santiago Creek Specific Plan Recirculated Draft Environmental Impact Report (RDEIR). The responses to the comments and errata, which are included in this document, together with the Mitigation Monitoring and Reporting Program, form the Final EIR for use by the City of Orange in its review.

This document is organized into four sections:

- **Section 1—Introduction.**
- **Section 2—Master Responses.** Provides a single, comprehensive response to similar comments about a particular topic.
- **Section 3—Responses to Written Comments.** Provides a list of the agencies, organizations, and individuals who commented on the RDEIR. Copies of all of the letters received regarding the RDEIR and responses thereto are included in this section.
- **Section 4—Errata.** Includes an addendum listing refinements and clarifications on the RDEIR, which have been incorporated.

The Final EIR includes the following contents:

- RDEIR (provided under separate cover)
- RDEIR Appendices (provided under separate cover)
- Responses to Written Comments on the RDEIR, Volumes 1 and 2 (Section 3 of this document)
- Errata (Section 4 of this document)
- Mitigation Monitoring and Reporting Program (provided under separate cover)
SECTION 2: MASTER RESPONSES

Master responses address similar comments made by multiple commenters (public agencies, businesses, organizations, or individuals) through written comments submitted to the City of Orange. In some instances, an individual response may both refer to a master response and contain further information that is responsive to the particular comment. Master responses are provided in the order set forth below.

2.1 - List of Master Responses

- Master Response 1—Plan Consistency
- Master Response 2—Adequacy of Project Description
- Master Response 3—Analysis of Alternatives
- Master Response 4—Dam Safety and Risk of Failure
- Master Response 5—Wildfire Risk
- Master Response 6—Stewardship of Open Space
- Master Response 7—Applicability of SMARA
- Master Response 8—Site Environmental Conditions
- Master Response 9—Soil Import/Export Numbers
- Master Response 10—General Comments on Project, General Opposition

2.2 - Master Responses

Master Response 1—Plan Consistency

Summary of Relevant Comments

Several commenters raised issues related to the consistency of the project with the City of Orange General Plan and the Orange Park Acres Plan. Specific issues raised include the following:

- Ability of the City to reconsider land use designations and densities in the existing plans
- Open space and resource area designations
- Proposed density of the project relative to what is identified in the General Plan and the Orange Park Acres Plan

Response

a. The City General Plan and the Orange Park Acres Plan

The approximately 109.2 acre project site includes both disturbed and undisturbed land, with approximately 40 acres containing remnants of a prior mining operation and a currently operating sand and gravel processing facility. There are other improvements on the rest of the site, including a flood control storm drain, a trunk water distribution line, and historic groundwater and methane monitoring wells. (Recirculated Draft Environmental Impact Report [RDEIR] Section 2, Project Description, page 2-1). The analysis of environmental and planning issues in the RDEIR takes account of these existing conditions in evaluating the impacts of the project.
The City of Orange General Plan designates the project site as Low Density Residential (LDR) (15.4 acres), Resource Area (RA) (77.3 acres), and Open Space (OS) (16.5 acres). The proposed project would change the RA designation to a combination of “Low Density Residential” and “Open Space,” and the LDR designation to “Open Space.” The part of the project site that is currently designated “Open Space” in the General Plan will remain designated as “Open Space.” The proposed project also includes a General Plan Amendment that would amend both the East Orange General Plan and Orange Park Acres plan to incorporate the Trails at Santiago Creek Specific Plan. The Trails at Santiago Creek Specific Plan would create vertical consistency with the General Plan.

The project site is located within the boundaries of the East Orange General Plan and the Orange Park Acres (OPA) Plan. It is important to note the legal status of these documents. The East Orange General Plan is part of the land use element of the City’s General Plan.

The OPA Plan is often referred to as “specific plan” but it is not a specific plan adopted pursuant to the specific plan statute. The Plan was adopted by City Resolution No. 3915 (included in Section 4, Errata, as Appendix R) in December 1973, prior to the 1974 enactment of the specific plan statute. That resolution adopted the Plan as a land use element of the General Plan. In addition, the OPA Plan does not meet the requirements for specific plans in Government Code Section 65450 et seq. The Plan identifies goals, policies and recommended land use concepts for Orange Park Acres, but does not contain a program of implementation measures, infrastructure plans or development criteria, as required by the statute. The Plan is described in the current General Plan 2010 as a “development plan” that is one of the plans that has influenced growth and change within the City of Orange (General Plan 2010, page I-23).

Therefore, the OPA Plan is a relevant land use document, and the consistency of the project with this Plan is evaluated in the RDEIR, but the OPA Plan does not control land use policy in the City in the same manner as the policies in the City’s General Plan 2010. Notably, the Supreme Court in *Orange Citizens for Parks & Recreation v. Superior Court* (2016) 2 Cal.5th 141, 157-158, held that the designations and policies in the General Plan 2010 control over any inconsistent provisions of the OPA Plan.

b. Standards for Determining Consistency with a General Plan


The legal test for determining whether a land use enactment is consistent with a general plan has been set forth in numerous court decisions. Generally, it is recognized that a general plan or a community plan consists of policies reflecting a wide range of sometimes competing interests. Accordingly, a project can be found to be consistent with a general plan and its various competing policies if the project furthers some policies and objectives of the general plan and does not inhibit or obstruct the attainment of other policies (67 Ops Cal Atty Gen 75 (1984); Office of Planning and Research [OPR], State of California General Plan Guidelines (2017)). Under this standard, a project need not be perfectly consistent with each and every policy (See, e.g., *Friends of Lagoon Valley v.*
City of Vacaville (2007) 154 Cal.App.4th 807, 815 [upholding overall consistency finding even though the project deviated from some plan provisions because plan allowed for balancing of competing policies]). Instead, the standard for a finding of consistency is that the project is in “harmony” with the general plan’s goals and objectives (Sequoyah Hills Homeowners Ass’n v. City of Oakland (1993) 23 Cal.App.4th 704, 719). Here, the RDEIR has properly and thoroughly identified and discussed relevant plan policies and goals for the City’s consistency determination. The RDEIR analyzed all of the applicable objectives, goals and policies, and provided sufficient detail and analyses to support the consistency findings for the proposed project.

Under these standards, when a comment expresses an opinion or a question arises regarding consistency with a specific goal or policy in a City’s general plan or specific plan, it is recognized that the lead agency has discretion to weigh whether the project would be consistent with the use, scale, and character of existing development and the surrounding natural environment. Courts generally defer to an agency’s decision on consistency with its own plan unless, on the basis of evidence before the decision-making body, a reasonable person could not have found the project to be consistent (The Highway 68 Coalition v. County of Monterey (2017) 14 Cal.App.5th 883, 896). Agencies have particularly broad discretion in determining whether a project is consistent with goals, policies, objectives, and measures of the agency’s own general plan (Napa Citizens for Honest Gov’t v. Napa County Bd. of Supervisors (2001) 91 Cal.App.4th 342, 378).

c. General Plan Consistency Issues
i. Consistency with General Goals and Policies

One commentator expressed the view that the project is not consistent with General Plan Goal 1.0 and Policies 1.2, 1.4, 1.6 and 6.1 setting forth general provisions governing new development, and further stated that there is no evidentiary support for the Environmental Impact Report (EIR) conclusion that the project is consistent with this goal and these policies. As set forth below, a number of facts demonstrate the consistency of the project with this goal and these policies. The ultimate determination of General Plan consistency will be made by the City Council, but these facts demonstrate that there is a sound factual basis for a finding that the project is consistent with the identified policies.

- **Goal 1.0**: Meet the present and future needs of all residential and business sectors with a diverse and balanced mix of land uses.
  - *Facts supporting consistency:* The project would redevelop a site previously used for surface mining activities to support up to 128 dwelling units and open space and recreation uses. The project would meet the present and future needs of residents by providing additional homes in the City and would provide a balanced mix of land uses by incorporating open space and recreational uses, including equestrian opportunities and trails.

- **Policy 1.2**: Balance economic gains from new development while preserving the character and densities of residential neighborhoods.
  - *Facts supporting consistency:* The project would be compatible with surrounding residential development by clustering the new dwelling units on 40.7 acres of the site adjacent to East Santiago Canyon Road and preserving the remaining acreage for open space and recreation use. The proposed density and type of housing product is similar to the residential uses to
the north, east, and south. Contrary to one commenter’s assertion, the project’s density would not far exceed surrounding densities. In fact, the density of the project would be on the low end of the General Plan’s “low-density” land use density range. The project is consistent with the policy of balancing economic benefits with the preservation of neighborhood character.

- **Policy 1.4:** Ensure that new development reflects existing design standards, qualities, and features that are in context with nearby development.
  - **Facts supporting consistency:** The project would promote land use compatibility with surrounding residential development by clustering the new dwelling units on 40.7 acres of the site adjacent to East Santiago Canyon Road and preserving the remaining acreage for open space and recreation use. The proposed density and type of housing product is similar to the residential uses to the north, east, and south. The density of the project would be on the low end of the General Plan’s “low-density” land use density range. The project would meet the City’s design standards and would be high-quality design. Therefore, it would be compatible with Policy 1.4.

- **Policy 1.6:** Minimize effects of new development on the privacy and character of surrounding neighborhoods.
  - **Facts supporting consistency:** The project would promote land use compatibility by clustering the new dwelling units on 40.7 acres of the site adjacent to East Santiago Canyon Road and preserving the remaining acreage for open space and recreation use. The homes on the project site would be separated from existing residential communities by open space grasslands, an open space greenway, and trails, which would minimize the massing of the project from other communities and protect the privacy of existing residents.

- **Policy 6.1:** Ensure that new development is compatible with the style and design of established structures and the surrounding environment.
  - **Facts supporting consistency:** The project promotes compatibility with surrounding residential development by clustering the new dwelling units on 40.7 acres of the site adjacent to East Santiago Canyon Road and preserving the remaining acreage for open space and recreation use. Additionally, the density and types of housing products are similar to residential uses north, east, and south of the project site. The project would contain high-quality design elements that would be compatible with the style and design of existing residential neighborhoods near the project site.

ii. **Comparison of Project Density with Surrounding Densities**

One comment expressed the view that the project is not consistent with the density in the surrounding area, and thus would permanently change the character of the area. The comment cited the density of one nearby development, Orange Park Acres. As shown in the EIR, however, the project is consistent with, and is less dense than, much of the area surrounding the project site.

The project proposes development of 128 dwelling units on approximately 40.7 acres of the approximately 109.2 acre site, with varying lot sizes, including 82 lots of approximately 8,000 square feet, 17 lots of approximately 9,200 square feet, and 29 lots of approximately 10,000 square feet.
Thus, the overall density of development on the site would be less than 1.2 dwelling units per acre. Considering only the residential portion of the project site, the density would be 3.1 dwelling units per acre. When considering the acreage of the residential area only, the density of the project (3.1 dwelling units per acre) would be on the low end of the General Plan’s allowable density for the “low-density residential” designation, which is 2.1 to 6.0 units per acre. Although the General Plan provides a density range of 2.1-6.0 dwelling units per acre, it notes that the “expected” density for the low-density residential designation is 5.0 dwelling units per acre, which is substantially higher density than the proposed project’s density.

The project proposes a zoning designation of single-family residential 8,000 square feet (referring to minimum lot area). The single-family neighborhood to the north of the site is similarly zoned low-density residential 8,000 square feet. The single-family neighborhood that forms the eastern boundary of the site (“The Reserve”) is zoned estate low-density residential 40,000 square feet and has typical lot sizes of 20,000–44,000 square feet. Surrounding residential uses to the east have typical lot sizes less than 10,000 square feet. The neighborhoods south of the project site are zoned estate low density residential 40,000 square feet and estate low density residential 20,000 square feet. South of the project site, the Jamestown neighborhood has a typical lot size of 8,000–11,000 square feet, the Orange Park Acres neighborhood has a typical lot size of 50,000 square feet to 1 acre plus, the Eichler Homes neighborhood has a typical lot size of 7,600–12,000 square feet, and The Colony-South neighborhood has a typical lot size of 7,000–10,000 square feet. Refer to RDEIR Section 2, Project Description, Figures 2-5a through 2-5g for the existing lot sizes in surrounding neighborhoods.

The estate low-density residential designations have a density range of 0 to 2.0 dwelling units per acre. While the estate low-density residential neighborhoods have slightly lower densities than the project site, the project’s density of 3.1 dwelling units per acre would be substantially similar to the density range of the estate low-density neighborhoods near the project site. In addition, the project would contain a substantial amount of open space, which would counterbalance the density of the residential component of the project. As noted above, while the density of the residential clustered component would be 3.1 dwelling units per acre, the overall density of the project would be less than 1.2 dwelling units per acre when considering the entire site (128 dwelling units on a 109.2-acre site).

iii. Consistency with Resource Area Designation

The project site is currently designated “Resource Area,” “Low Density Residential,” and “Open Space” by the City of Orange General Plan. In accordance with the proposed project, the portion of the site north of Santiago Creek, currently designated as “Low Density Residential,” is proposed to be re-designated as “Open Space” and the portion of the site currently designated as “Resource Area” is proposed to be re-designated to “Low Density Residential,” and “Open Space.” The “Resource Area” land use designation reflects the surface mining activities that occurred on the south side of Santiago Creek. General Plan Land Use Element, page LU-23, notes that the “Resource Area designation provides for the continued use of areas for mining and agriculture.” The description for the Resource Area designation (General Plan Land Use Element, page LU-16) states that the designation “[a]llows for agricultural uses and continued use of stream and river channels for aggregate mining. Passive and active recreational uses are also permitted. May serve as a holding zone for future uses compatible with established and planned land uses in surrounding areas.”
Given that the RA designation is characterized as a “holding zone” for current mining and agriculture uses, one commenter’s assertion that residents have long relied on the RA designation for rural open space is a mischaracterization of the General Plan’s policies and vision for the RA areas. The statement in the General Plan that the commenter references (that the RA designation may serve as a holding zone for uses compatible with established and planned land uses in surrounding areas) supports the exact project that is proposed. The project would involve low-density residential, open space, and recreational uses, which would be compatible with existing low-density residential neighborhoods. Moreover, as noted above, while the project would redesignate an RA area to low density residential, it would also redesignate low-density residential uses to open space uses, thereby alleviating the commenter’s concern that the project would not contain rural open space.

iv. Consistency with Public Safety Policies

One commenter states an opinion that the project would be inconsistent with Public Safety Policy 4.3, which calls for the City to ensure that hazardous materials dumpsites are cleaned prior to the establishment of new land uses. Contrary to the commenter’s assertion, Mitigation Measures HAZ-2a through HAZ-2c would ensure that hazardous conditions would be remediated prior to establishment of residential land uses. Please see Master Response 8—Site Environmental Conditions for further detail.

Specifically, Mitigation Measure HAZ-2a requires proposed enclosed structures to be situated strategically to allow for future remediation of any potential landfill gas migration. Prior to issuance of building permits where vapor intrusion has the potential to occur, the applicant will be required to submit plans to the City identifying vapor intrusion abatement measures for trichloroethylene (TCE) and methane. Mitigation Measure HAZ-2a includes sample abatement measures and requires abatement measures to be incorporated into building plans. Mitigation measure HAZ-2a also requires a supplemental Phase II Environmental Site Assessment (ESA) to be conducted, in accordance with applicable guidance documents, to determine the vertical and lateral extent of previously identified contamination. It also requires a soil risk management plan to be prepared and submitted to the California Department of Toxic Substances Control (DTSC) to address any discovery of previously unknown contamination. All occupied structures within a 1,000 foot radius of the landfill will be required to include the following structural controls to limit the potential for landfill gas accumulation (unless such controls are determined not to be necessary by the City in consultation with the Local Enforcement Agency): (1) a geomembrane between the slab and the subgrade; (2) a permeable layer with venting pipe between the geomembrane; and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures.

Mitigation Measure HAZ-2b requires the project applicant to conduct additional groundwater sampling under the guidance of DTSC, focused on the area within 1,000 feet of the Villa Park landfill, to assess whether total petroleum hydrocarbons (TPH), methane, and/or volatile organic compounds (VOCs) have impacted groundwater. If groundwater is affected, the applicant must conduct a multimedia risk assessment under the guidance of DTSC, which would be required to be conducted in accordance with applicable guidance documents. The applicant would be required to retain a qualified hazardous materials contractor to remove all soil containing TPH to the standards of DTSC or other applicable regulatory agency prior to issuance of grading permits. Following cleanup of the soil, the applicant will be required to submit documentation to the City confirming that the
mitigation measure was successful. Mitigation Measure HAZ-2c requires that the project applicant contact the City Engineer to consult with and obtain approval from the Orange County Integrated Waste Management Department for the relocation of any monitoring wells or probes that would be impacted by development on the site prior to commencement of any construction that would impact existing landfill or related gas monitoring equipment.

With implementation of the measures above, which provide ample evidentiary support for the conclusions in the REIR, the project would comply with Public Safety Policy 4.3 and would ensure that hazardous materials are cleaned prior to establishment of new residential uses.

v. Consistency with Roadway Network Policies

One commenter alleges that the project would be inconsistent with General Plan provisions relating to operations of the City’s roadway network by identifying a significant and unavoidable impact at the intersection of Orange Park Boulevard and East Santiago Canyon Road (exceeds the level of service [LOS] standards in the PM peak-hour in 2022). The commenter argues that because the impact at the intersection of Orange Park Boulevard and East Santiago Canyon Road is significant and unavoidable, the project is inconsistent with the following General Plan goals and policies:

• Growth Management Goal 1.0: Reduce traffic congestion within the City.
  - The proposed project’s impacts on traffic are evaluated in Section 3.16, Transportation and Traffic. As discussed in Section 3.16, local intersections were evaluated against the City’s adopted performance standards and mitigation measures were proposed to improve deficient operations to acceptable levels. As such, the project is consistent with the goal of reducing traffic congestion.

• Growth Management Policy 1.2: Ensure completion of transportation improvements as agreed upon by the City and developer prior to completion of a development project.
  - All vehicular access points (including the improved intersection of East Santiago Canyon Road/North Nicky Way) would be required to be completed in accordance with City standards prior to issuance of the first certificate of occupancy. The project would comply with Policy 1.2.

• Growth Management Policy 1.5: Require new development projects to link issuance of building permits for the appropriate portion of the development plan to roadway improvements required to achieve the appropriate LOS.
  - The proposed project’s impacts on traffic are evaluated in RDEIR Section 3.16, Transportation and Traffic. Local intersections were evaluated against the City’s adopted performance standards and mitigation measures were proposed to improve deficient operations to acceptable levels. As such, the project is consistent with the policy of linking a building permit for a project to achieving appropriate LOS at intersections that would potentially be affected by the project.

Mitigation Measure TRANS-2, which would require fair share contributions from the project for two key intersection improvements, would mitigate the project’s impact at Orange Park Boulevard/East Santiago Canyon Road. However, despite the fair share contributions, impacts would be significant and unavoidable because the intersection is not listed in the City of Orange Master Plan of Arterial...
Highways (MPAH) or any similar plan. Therefore, contrary to the commenter’s assertion, the significant and unavoidable impact at Orange Park Boulevard/East Santiago Canyon Road does not make the project inconsistent with the General Plan provisions relating to the operations of the City’s roadway network. The mitigation measures required for the project mitigate all impacts of the project to the roadway. The impact remains significant and unavoidable simply because the intersection is not listed in the City of Orange MPAH or a similar plan.

The project would be consistent with the General Plan provisions relating to operations of the City’s roadway network, as discussed in RDEIR Section 3.10, Land Use, on page 3.10-15. Local intersections were evaluated against the City’s adopted performance standards and mitigation measures were recommended to maintain operations at acceptable levels.

d. **Consistency with Orange Park Acres Plan and East Orange Plans**

As the RDEIR correctly concluded, the project is consistent with the OPA Plan and East Orange Plan. This consistency is discussed in RDEIR Section 3.10, Land Use, Table 3.10-3, showing the project would be consistent with the East Orange General Plan, and RDEIR Table 3.10-4, showing the project would be consistent with the OPA Plan.

i. **Consistency with the East Orange Plan**

The East Orange General Plan encompasses approximately 1,900 acres. Approximately 37 acres of the project site are located within the boundaries of the East Orange General Plan. While the East Orange General Plan does not outline goals and policies similar to contemporary general plans, the project is consistent with concepts identified in the East Orange General Plan. For example, the East Orange General Plan contains a concept that where possible, new development should be compatible with existing residential densities and should maintain continuity with architectural style, house size, and price range. The project’s residential area would have a density that is similar to or less dense than most nearby residential areas, including the Jamestown neighborhood, which is within the East Orange General Plan area. The East Orange General Plan envisions an “assortment of open space categories.” Approximately 37 acres of the project site are located within the boundaries of the East Orange General Plan and are designated “Regional Park.” While the project would amend the 37 acres that are within the East Orange General Plan, the 37 acres are approximately 2 percent of the East Orange General Plan area. Additionally, the proposed project includes 68.5 acres of open park space, split into 40.2 acres of Greenway Open Space/Santiago Creek Riparian Corridor and 28.3 acres of Grasslands Open Space. Therefore, the proposed project would include 68.5 acres of open space/park uses adjacent to, and partially within, the East Orange General Plan; creating more open space in the vicinity than the 37 acres of the project site that are within the East Orange General Plan.

The East Orange General Plan references design of the Santiago Creek Greenbelt in the project site area. The project would be consistent with the reference to the Greenbelt because it includes a 40.2-acre Greenway Open Space/Santiago Creek Riparian Corridor. The East Orange General Plan emphasizes pedestrian and equestrian movements between neighborhoods. The project would include a multitude of trails to connect the proposed project and existing community to existing and future trails and bike lanes. The project would also provide a sidewalk for pedestrians along the frontage of East Santiago Canyon Road where one does not currently exist. Lastly, the East Orange General Plan envisions a trail system to include equestrian/hiking trails and bike trails. As mentioned
above, the project would include a multitude of trails to connect the project and existing community
to existing and future trails and bicycle lanes for recreation and commuting purposes.

ii. Consistency with the Orange Park Acres Plan
The OPA Plan encompasses approximately 1,794 acres, of which 39 acres are located on the project site. The project is consistent with the OPA Plan objectives and policies. For example, the OPA Plan contains an objective to provide a wholesome rural atmosphere emphasizing a quiet seclusion close to nature. The project would retain a wholesome rural atmosphere by separating the residential component of the project from adjacent residential developments by open space, emphasizing a quiet seclusion and closeness to nature and open space. The rural character of the site would also be maintained by inclusion of an equestrian trail system.

An objective of the OPA Plan is to foster compatible residential development within the area both visually and functionally. The project would comply because its residential area has a similar density to nearby residential neighborhoods, including the following neighborhoods located in the OPA Plan area: Broadmoor Homes, Leadership Housing Specific Plan, Pacesetter Homes, and a small portion of the Jamestown neighborhood. The OPA Plan envisions various areas to be linked through a system of trails and streetscape landscaping. Additionally, the project includes a sidewalk for pedestrians along the frontage on East Santiago Canyon Road where a sidewalk does not currently exist.

The OPA Plan promotes a “lifestyle” that allows for diversity of activities. The project would include residential uses, a multitude of trails, bicycle lanes, sidewalks, and equestrian trails. The project would serve a diversity of activities, from walking to horseback riding. The OPA Plan seeks to preserve positive features of major drainage courses and bodies of water to utilize them for recreational purposes. The project proposes a 40.2 acre Greenway Open Space/Santiago Creek Riparian Corridor, and preserves the Handy Creek drainage area as greenspace. Approximately 39 acres of the project site are located within the boundaries of the OPA Plan and are designated as “Open Space.” While the project would amend the approximately 39 acres that are within the OPA Plan, the 39 acres are approximately 3 percent of the OPA Plan total area, and are on the fringe of the OPA Plan area. Additionally, the project would include 68.5 acres of open park space, split into 40.2 acres of Greenway Open Space/Santiago Creek Riparian Corridor and 28.3 acres of Grasslands Open Space. Therefore, the project would include 68.5 acres of open space/park uses adjacent to, and partially within, the OPA Plan, thus creating more open space in the vicinity than the 39 acres of the project site that are within the OPA Plan area.

A policy of the OPA Plan is to provide for continuous trail linkages to connect trails to major land use elements and natural features. Another OPA Plan policy is to preserve Santiago Creek as a balanced ecological system and allow for light recreational use. The project would include a multitude of trails that would connect the proposed residential uses with existing and future trails and bicycle lanes. The project would promote light recreational use. In addition, the project would involve a 40.2-acre greenway along Santiago Creek and preservation of the Handy Creek drainage areas as greenspace. One of the OPA Plan policies is to phase out gravel pit operations to restore natural amenities. The project proposes residential and open space/recreational uses in place of the former mining operations.
A prominent policy of the OPA Plan in its residential designations is the concept of “clustering.” The OPA Plan envisions “single-family attached and detached clusters referred to as “rural clusters” within a greenbelt or open space context” for medium-low density residential areas. The proposed project area encompasses approximately 109.2 acres, 68.5 acres of which would be dedicated to open space, and approximately 40.7 acres of which would contain a residential “cluster” of homes. The proposed site design would align with the OPA Plan concept of “clustering” and retaining open space areas near residential “clusters.” Although the residential units are “clustered” on approximately 40 acres, each lot is being subdivided to meet the City’s R-1-8 standards.

Lastly, one OPA Plan policy is to provide for landscaping, greenbelt, or open space buffers between housing types. The project would encompass approximately 109.2 acres, 68.5 acres of which would be dedicated open space. The project’s residential area would be clustered as envisioned by the OPA Plan, and the density of the residential component would be similar to the density of nearby residential neighborhoods, including Jamestown, Mabury Ranch, Broadmoor Homes, Leadership Housing Specific Plan, and Pacesetter Homes. The separation of the project’s residential area from existing residential development adjacent to the project site, achieved the by the proposed open space, would provide a quiet seclusion and closeness to nature, as envisioned by the OPA Plan. The rural aspect envisioned by the OPA Plan would be maintained, in part, by inclusion of an equestrian trail system. A list of the OPA Plan’s goals, objectives, and policies, which the project is consistent with, is included in RDEIR Section 3.10, Land Use, as Table 3.10-4 (page 3.10-26 through page 3.10-28).

In fact, the Orange Park Acres Association previously supported a more intensive development on the project site in a letter dated May 28, 2003 and found it to be compatible with the OPA Plan. Orange Park Acres Association specifically found the more intensely developed project to be consistent with the clustering concept envisioned by the OPA Plan. Orange Park Acres Association has consistently supported a clustered residential concept. This earlier project included the development of a gated residential community with a maximum of 189 single-family homes on lots ranging from 8,000 to 22,000 square feet. The residential development was spread across most of the project site, including both the north and south sides of Santiago Creek encompassing approximately 83 acres. The remaining portion of the site consisted of approximately 26 acres of open space (approximately 31 percent of the site), which did not include a greenway aspect, unlike the proposed Trails of Santiago project. The current project includes less development and sets aside a larger area for open space.

e. **Response to General Comments on Plans**

A number of commenters expressed the view that certain promises were set forth in the City’s plans, particularly the East Orange Plan and the OPA Plan, and that City should keep those promises. As stated in the above responses, the proposed project is consistent with the provisions and policies set forth in the governing plans. The City Council will make the ultimate determination of plan consistency, but there is a sound basis for the City to determine that the project is consistent with all applicable plans should the City Council exercise its discretion to do so.
Master Response 2—Adequacy of the Project Description, Level of Detail

Summary of Relevant Comments

Several commenters raised the issue of the amount of detail provided in RDEIR Section 2, Project Description, including claims that more information and detail is needed in order to allow for sufficient evaluation of the potential environmental effects of the project.

Response

While project descriptions must not omit integral components of the project, project descriptions should not provide extensive detail beyond that needed for evaluating environmental impacts (Santiago County Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818, 829; California Environmental Quality Act [CEQA] Guidelines § 15124). For example, a project description for a sand and gravel mine cannot omit information regarding the water pipelines proposed to serve the project. As the court stated in San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus (1994) 27 Cal.App.4th 713, 730, “an accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.” Courts have also stated that an accurate and stable project description is necessary so that the lead agency and the public have enough information to “ascertain the project’s environmentally significant effects, assess ways of mitigating them, and consider project alternatives” (Sierra Club v. City of Orange (2008) 163 Cal.App.4th 523, 533; Save Round Valley Alliance v. County of Inyo (2007) 157 Cal.App.4th 1437, 1448).

The RDEIR contains each of the required elements of an EIR project description; as such requirements are set forth in CEQA Guidelines Section 15124. RDEIR Section 2, Project Description, contains the following information:

- The precise location and boundaries of the proposed project, including detailed maps are included in RDEIR Section 2, Project Description, in Exhibits 2-2, 2-3, 2-5, and 2-7. The RDEIR includes a regional map in Exhibit 2-1. (CEQA Guidelines § 15124(a))

- A statement of objectives sought by the proposed project is found in RDEIR Section 2, Project Description, on page 2-64. (CEQA Guidelines § 15124(b))

- A general description of the project’s technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities is located in RDEIR Section 2, Project Description, subsection 2.3, Project Characteristics. (CEQA Guidelines § 15124(c))

- A statement of the intended uses of the RDEIR is found in RDEIR, Section 2, Project Description, subsection 2.5, Intended Uses of this Draft EIR, starting at page 2-65. (CEQA Guidelines § 15124(d))

- A list of known discretionary and ministerial actions is included in RDEIR Section 2, Project Description, subsection 2.5.1., Discretionary and Ministerial Actions. (CEQA Guidelines § 15124(d))

The project description provides a complete description of the proposed project’s components, an accurate description of the project’s location, and comprehensive project objectives. The project’s
technical, economic, and environmental characteristics are also described in the project description. It contains fundamental information about the project’s implementation and discloses all pertinent facts necessary to determine the environmental impacts of the project. Contrary to the assertion in one comment letter, the project description is not required to identify a reclamation plan to be prepared for mining operations because the Surface Mining and Reclamation Act (SMARA) does not apply to the project. Please refer to Master Response 7—Applicability of SMARA. The project description provides all required information necessary for the public and decision-makers to analyze the impacts of the project and is therefore complete and legally sufficient.

A number of comments claimed that more detail is needed. Notably, the CEQA Guidelines provide that the level of detail in an EIR project description should be “general.” This means in general that all EIRs must include information about the main features of a project, but EIRs are not required to provide information beyond what is needed to assess the impacts of the project. The leading court decision on the level of detail in EIR project descriptions stated that a “general description” is all that is required (Dry Creek Citizens Coalition v. County of Tulare (1999) 70 Cal.App.4th 20, 28). The court also stated that an EIR “should not” provide additional detail beyond what is needed for environmental evaluation. (Id. at 26.)

In addition, the level of detail or specificity required in an EIR also depends on the degree of specificity involved in the proposed activity reviewed in the EIR. CEQA Guidelines Section 15146 contrasts a construction-level of detail with a zoning ordinance level of detail. For example, an EIR on a construction project must be more specific and detailed than an EIR on the adoption of a general plan or some other general policy or plan (CEQA Guidelines § 15146(a)). In contrast, an EIR on a policy or plan should focus on the secondary effects expected to follow from adoption of the plan or policy and need not be as detailed as an EIR on the specific construction projects that will follow (CEQA Guidelines § 15146(b)). Cases confirm that the level of specificity required is determined on the basis of the nature of the project (North Coast Rivers Alliance v. Kawamura (2015) 243 Cal.App.4th 647, 679; San Diego Citizenry Group v. County of San Diego (2013) 219 Cal.App.4th 1, 21; Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692, 733). In this case, the RDEIR provides a project-specific level of analysis, but it is being prepared for a project with planning-level entitlements (general plan amendments, zone change, development agreement, and adoption of a specific plan, see RDEIR Section 2, Project Description, page 2-65).

The RDEIR contains all the detail that is required. The Project Description in the RDEIR is 66 pages in length, and includes level appropriate descriptions, diagrams, and maps. These diagrams include a land use plan (RDEIR Section 2, Project Description, Exhibit 2-9), a proposed site plan (RDEIR Section 2, Project Description, Exhibit 2-10), a preliminary greenway, open space and trails plan (RDEIR Section 2, Project Description, Exhibit 2-11), and diagrams showing existing traffic circulation and proposed traffic circulation (RDEIR Section 2, Project Description, Exhibits 2-12a, 12b).

Master Response 3—Analysis of Alternatives

Summary of Relevant Comments

Several commenters raised issues related to the analysis of alternatives. The key issues raised by commenters include the following concepts:
1. Legal adequacy of the analysis of the two No Project alternatives
   a. reasonably foreseeable on-site operations
   b. increased impact if sand and gravel operations were to be re-instituted
2. Acreage assumption for Alternative 1—Development within the Existing Land Use Designations
3. Reflecting land use designations from the OPA and/or East Orange Plans
4. Improper Rejecting of Alternative 3—Collaborative Group
   a. alternative should not be rejected as infeasible or as not meeting project objectives
   b. proper name should be “Liaison Committee Alternative”

Responses
Several comments suggest the RDEIR’s analysis of alternatives is legally inadequate because it fails to study specific alternatives proposed by commenters. The CEQA Guidelines, however, explain that an EIR need discuss only a range of reasonable alternatives (CEQA Guidelines § 15126.6.). An EIR that discusses a reasonable range of alternatives is not deficient simply because it excludes other potential alternatives from its analysis (City of Maywood v. Los Angeles Unified Sch. Dist. (2012) 208 Cal.App.4th 362; Cherry Valley Pass Acres & Neighbors v. City of Beaumont (2010) 190 Cal.App.4th 316).

The RDEIR adequately analyzed a reasonable range of project alternatives that could result if the project was not approved or that could avoid or substantially lessen environmental impacts resulting from the proposed Project. The Collaborative Group Alternative and the 122 Unit Alternative were both crafted in response to community input. The Collaborative Group Alternative is based, in part, on the Pre-Development Agreement Alternative Land Use Plans identified during community outreach. It was developed in response to meetings with representatives from neighborhoods near the project site: Orange Park Acres, Mabury Ranch, and The Reserve. It analyzes a reduced density alternative consisting of 47 lots, with a minimum lot size of 8,000 square feet, and 47 dwelling units of varying sizes, on approximately 40 acres. The residential lots would be located on the southern portion of the site. This alternative provides decision makers with information about how project objectives could be satisfied in a smaller development. As explained in the analysis, this reduced density project would not meet the majority of project objectives. The lead agency may make reasonable inferences regarding whether an even smaller project would be able to meet project objectives. There is no requirement under CEQA to analyze the incremental environmental impacts of several successively smaller alternative developments, nor is there a CEQA requirement to study specific alternatives suggested by members of the public if the EIR disclosed a reasonable range of alternatives (Center for Biological Diversity v. Department of Fish & Wildlife (2015) 234 Cal.App.4th 214, 256; City of Maywood v. Los Angeles Unified Sch. Dist. (2012) 208 Cal.App.4th 362, 420). The smaller alternative developments proposed by the Orange Park Acres Board request a mix of densities ranging from 8,000 square feet, to 10,000 square feet, to 15,000 square feet, to 1 acre lots. In proposing an alternative with lots less than 1 acre, these commenters acknowledge that lots with a density range of 8,000 square feet to 1 acre are compatible with the density of surrounding neighborhoods and a larger open space component that permits these smaller lots in a cluster format.
1. Legal Adequacy of the Analysis of the Two No Project Alternatives.

It is appropriate to identify and analyze two potential No Project alternatives. The CEQA Guidelines recognize that there are two variations on the “no project” alternative (CEQA Guidelines § 15126.6(e)(3)(A-B)). Where the project involves the revision of an existing plan, policy, or ongoing operation, the no-project alternative should reflect continuation of the existing plan, policy, or operation (CEQA Guidelines § 15126.6(e)(3)(A)). The EIR should also analyze the impacts of the no-project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines § 15126.6(e)(2)).

For the proposed project, Alternative 1 consists of development and land use activities that would occur pursuant to the existing City of Orange General Plan land use designations of low-density residential, resource, and open space for the project site. This is a reasonable foreseeable future for the project site and appropriately analyzed in an alternative.

RDEIR Section 2, Project Description, subsection 2.1.2, Existing Land Use Activities, describes the current use of the site as a “historically grandfathered land use sand and gravel operation in accordance with the site’s existing Sand and Gravel zoning” (Orange Municipal Code Chapter 17.32). Therefore, the continued operation of a sand and gravel land use is an appropriate “no project” alternative and is analyzed in Alternative 2.

Because both of these alternatives are reasonably foreseeable, they are appropriately considered as potential outcomes if the project is not approved and are correctly included as “no project” alternatives.

2. Acreage Assumption for Alternative 1—Development within the Existing Land Use Designation

Several comments question the acreage assumption in Alternative 1, stating that only 12.6 acres are currently designated for residential use. (See Shute, Mihaly & Weinberger LLP, [SMW] comment 18 regarding acreage, and comment 57 regarding use of that acreage in Alternative 1).

RDEIR Section 2, Project Description, Exhibit 2-6, confirms that the Orange General Plan designates 15.4 acres of the project site for residential development. As such, the Alternative correctly identifies the acreage designated for development in Alternative 1.

3. Reflecting Land Use Designations from Orange Park Acres and/or East Orange Plans

It is important to note that while the OPA Plan is labeled as a “specific plan,” the City has previously determined that it does not contain the level of detail required of a specific plan under Government Code Section 65450. The OPA Plan identifies goals, policies, and recommended land use concepts for Orange Park Acres, but does not contain a program of implementation measures, infrastructure plans, or development criteria. Refer to RDEIR Section 3.10, Land Use, for a detailed discussion of project consistency with the City of Orange General Plan, City of Orange zoning, East Orange General Plan, and Orange Park Acres Plan.

4. Improper Rejecting of Alternative 3—Collaborative Group

The City, as lead agency, will review all project alternatives when considering the project. As discussed in Section 5.5, the Collaborative Group Alternative, would not advance the objectives that
concern guiding the transition of an infill site with a Specific Plan; developing a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists; and would not include the Development Agreement benefits to the community.

The City Council designated two members of the Council to serve on a City Council Ad Hoc Committee to engage with the Sully Miller landowner and members of the community in the area. That Ad Hoc Committee conducted a series of meetings with representatives of Mabury, The Reserve and Orange Park Acres to discuss opportunities and constraints related to possible development on the site. Each Homeowner’s Association (HOA) designated their specific representative(s). The last meeting of that group was March 2018. Separate from the Ad Hoc Committee meetings, the representative of the property owner has been meeting with stakeholders from the various neighborhood groups in the area. The property owner has referred to these stakeholders cumulatively as a “liaison committee.” In some cases, the property owner has met with the “liaison committee” as a group and sometimes he has met with them individually. Nevertheless, this activity has been solely at the property owner’s discretion in an effort to reach a consensus with the community regarding a development proposal. Again, this activity has been independent from the City Council Ad Hoc Committee meetings.

Master Response 4—Dam Failure and Liability

Summary of Relevant Comments

Several commenters identified the proximity of Villa Park Dam and Santiago Dam, and the resulting potential for hazardous conditions in the event of dam failure.

Response

Santiago Creek Dam was last inspected on May 3, 2018, according to the United States Army Corps of Engineers (USACE) National Inventory of Dams. Its condition assessment rating is “satisfactory” and its hazard potential rating is “extremely high.” Likewise, Villa Park Dam’s condition assessment rating is “satisfactory” and its hazard potential rating is “extremely high.” It was last inspected on February 21, 2018, according to the USACE website. According to the California Division of Safety of Dams (DSOD) website, a “satisfactory” condition assessment indicates that no existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, and seismic) in accordance with applicable regulatory criteria or tolerable risk guidelines. Hazard classifications are based on the size of the reservoir and the number of people who live downstream of a dam, not the actual conditions of the dam or its critical structures. Therefore, the condition assessment is a better indicator of potential dam deficiencies with the potential to cause downstream flooding.

Pursuant to the California Water Code, dam inspections at Santiago Creek Dam and Villa Park Dam are conducted by the DSOD at least once per year pursuant to laws, regulations, and practices of DSOD to ensure the dam is safe, performing as intended, and is not developing problems. DSOD also reviews the stability of dams and their major appurtenances in light of improved design approaches and requirements, as well as new findings regarding earthquake hazards and hydrologic estimates in California.
The DSOD evaluation program is an ongoing screening process of spillways and other appurtenances at dams throughout the State. Subsequent to the assessment, DSOD works with dam owners to expedite development of required assessments and restore known areas of deficiency. Roughly, a third of DSOD inspections result in in-depth instrumentation reviews. In 2017, the Santiago Creek Dam required an extra spillway assessment in addition to its standard yearly inspection. The evaluation required by DSOD includes assessment of:

- The spillway’s design and construction and geologic attributes while concurrently reviewing the dam owner’s maintenance and inspection program;
- The spillway's historical performance;
- Any previous spillway repairs.

To conduct the spillway assessment required by DSOD, the owners of Santiago Dam, the Irvine Ranch Water District (IRWD) and Serrano Water District, submitted a workplan to DSOD in 2017. The assessment is in-progress.

In addition to the DSOD inspections, IRWD and Serrano Water District inspect the Santiago Creek Dam and spillway quarterly with a dam safety consultant and bi-annually with the DSOD. In addition, IRWD staff visually inspects the dam daily and has caretakers that live on-site and observe the dam daily. Measurements of drain flows, monitoring wells, and piezometers are taken monthly. Piezometers are used to measure groundwater and other fluid pressure levels. Dam crest survey markers give IRWD the ability to measure horizontal or vertical movement of the dam, which are measured by a licensed surveyor annually to evaluate any adverse trends. With the above safety precautions in place and given the condition rating of both dams as “satisfactory,” dam failure is not anticipated.

In terms of City policy, the General Plan identifies areas downstream of the Santiago Creek and Villa Park dams for potential flooding in the event of a catastrophic dam failure (General Plan, page PS-4). The General Plan characterizes such an event as “unlikely” (page PS-4) and does not prohibit or limit development in these areas.

Maps compiled for potential dam failures are created, in part, in order to implement emergency procedures required under Section 8589.5 of the California Government Code. The Orange County Operational Area Emergency Action Plan Dams/Reservoir Failure Annex indicates that it would take a dam failure flood wave 105 minutes to reach the project site from Villa Park Dam and 255 minutes from Santiago Dam. Emergency procedures that the County and the City have established to protect lives and property in the event of a dam failure would allow persons to be evacuated in the event of a failure of Santiago Creek Dam or Villa Park Dam. Emergency response times for the City of Orange Police Department vary on average from 4 to 7 minutes and emergency response times for the City of Orange Fire Department are, on average, 3 minutes, 45 seconds; therefore flood flows would move at rates which would allow emergency procedures to be implemented and persons to be evacuated. Staff members at both dams are trained in operation of the facilities and would be able to identify and respond to indications of adverse conditions; therefore, initial alerting of a dam failure would occur quickly. Furthermore, the Orange County Sheriff’s Department oversees the County’s Emergency Operations Center and has modeled dam failure scenarios for both Villa Park
Dam and Santiago Dam based on Federal Emergency Management Agency (FEMA) Flood Maps (RDEIR Section 3.9, Hydrology and Water Quality, Exhibit 3.9-4). The Sheriff’s Department has developed plans to provide timely notification to affected parties and implement an orderly evacuation in the event dam failure indications are observed, such as the AlertOC mass notification system that provides time-sensitive messages to residents from the City or County in which they live or work. Every method known to warn the public of an impending dam failure, including the following systems, would be utilized by the City and County in the event of a dam failure at Villa Park Dam or Santiago Dam:

- Emergency Alerting System (EAS) on the AM/FM radio
- AlertOC (Service is available to residents and non-residents to receive time-sensitive information in the event of a natural disaster or emergency. Residents should register for this service)
- Police and Fire sirens
- Police helicopter loudspeakers
- Door-to-door canvassing

Moreover, the General Plan requires that appropriate flood control measures be implemented along Santiago Creek and throughout the planning area to reduce the risks from localized flooding and the General Plan EIR implements the following two mitigation measures specific to flooding that would reduce potential impacts throughout the City:

- General Plan EIR Section 5.8, Hydrology and Water Quality, Mitigation Measure 5.8-1 Support efforts by the OCFCD to regularly maintain flood control channels and structures owned by the OCFCD, and to complete necessary repairs in a timely manner. Work with the OCFCD and USACE to identify new flood control improvements and establish installation programs for improvements as needed. Work with the OCFCD to identify opportunities to enhance the natural qualities of Santiago Creek to protect habitat and reintroduce native plants, animals, and fish. (Implementation Program V-11; Responsible Party—Community Development Department, Community Services Department, Public Works Development; Timeframe—Ongoing) (General Plan EIR, page 5.8-25–5.8-26).
- General Plan EIR Section 5.8, Hydrology and Water Quality, Mitigation Measure 5.8-2 Continue to inspect storm drains, remove debris from catch basins as needed, and evaluate and monitor water storage facilities to determine if they pose a water inundation hazard. (Implementation Program I-32; Responsible Party—Public Works Development; Timeframe—Ongoing) (General Plan EIR, page 5.8-25.)

As discussed in the City’s General Plan EIR, Citywide flood prevention methods, such as provision of detention basins and on-site stormwater drainage, reduce runoff into the City’s drainage facilities and provide adequate drainage for new developments. The City minimizes flood-related risks and

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1 Enjoy Orange County, Dams in Orange County. Website: https://enjoyorangecounty.com/dams-in-orange-county Site accessed March 6, 2019.
hazards in the event of dam or reservoir failure by encouraging the County’s Flood Control District to continue proper inspection of storm drains, ensuring maintenance of the flood control facilities, and preventing earthquake damage. In addition, the City monitors water storage facilities to determine potential inundation hazards to surrounding properties (General Plan, page PS-19.).

In addition to the emergency procedures, General Plan policies, and mitigation measures listed above, RDEIR Section 3.9, Hydrology and Water Quality, Mitigation Measure HYD-5, requires the applicant to prepare and implement an Emergency Evacuation Plan, which would identify specific procedures for the safe and orderly evacuation of the project. The plan would specifically require the streets to be identified with clear and visible signage and, if necessary, wayfinding signage to identify exit points.

The project is consistent with the provisions of the General Plan related to flooding, and would implement and support the General Plan’s policies and the General Plan EIR’s mitigation measures. There is no inconsistency between the proposed project and the provisions of any applicable general, specific, or regional plan related to flood prevention (CEQA Guideline § 15125(d)).

Given the fact that the (1) Villa Park Dam and the Santiago Creek Dam are listed as having “satisfactory” conditions, (2) the project is consistent with applicable General Plan policies related to flood prevention, (3) time durations associated with potential dam failures would provide sufficient response times and resources to evacuate the project site in the event of a dam failure, and (4) Mitigation Measure HYD-5 would be required to reduce impacts related to flooding, impacts associated with dam failure are properly considered less than significant.

**Master Response 5—Wildfire Risk**

**Summary of Relevant Comments**

Several commenters raised the issue of wildfire and the project’s location in the wildland urban interface.

**Response**

The eastern portion of the project site abuts Santiago Oak Regional Park and contains the wooded Santiago Creek Corridor. The project site is located at the wildlife/urban interface. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-16, the project proposes to strategically place approximately 68.5 acres of open space/grasslands and greenway with managed vegetation within the western, northern, and eastern portions of the project site in order to provide sufficient protection from wildland fires and alleviate related impacts. The project’s open space areas will constitute a buffer against the spread of fire. Planning Area B, the Grassland area south of Santiago Creek, includes a managed vegetation/fuel modification zone north of and east of Planning Area C that would act as a vegetative buffer between the open space and residential neighborhood. The buffer zone would be 130 feet wide and would include plantings responsive to fuel management policies. In addition, the project proposes a 20-foot wet zone within the rear yard of the residential lots to support fuel management policies. The managed vegetation/fuel modification zones comply with fuel modification requirements in Section 320 of the Orange County Fire Code (as required by City of Orange Municipal Code Section 15.32.020). Upon dedication of the open space in Planning
Areas A and B to the City of Orange, County of Orange, or another entity, the applicant/developer will retain an easement for fuel modification zone maintenance.

Orange General Plan, Public Safety Element, page PS-4, notes that “keeping neighborhoods buffered from both urban and wildland fire hazards reduces incidents requiring response, and minimizes damage to property when fires to occur.” Orange General Plan, Public Safety Element, page PS-19, states that development within or adjacent to an identified wildland fire area “. . . must prepare and implement a comprehensive fuel modification program in accordance with City regulations. The City will review new developments and fire services to ensure adequate emergency services and facilities to residents and businesses.”

Orange General Plan, Public Safety Element, Goal 3.0 on page PS-4, is to “[p]rotect lives and property of Orange residents and businesses from urban and wildland fire hazards.”

Orange General Plan, Public Safety Element, Policy 3.3 states:

Require planting and maintenance of fire-resistant slope cover to reduce the risk of brush fires within the wildland-urban interface areas located in the northern and eastern portions of the City and in areas adjacent to canyons, and develop and implement stringent site design and maintenance standards for all areas with high wild land fire potential. To the extent possible, native, non-invasive plant materials are encouraged.

The General Plan Public Safety Element goal and policy above would be advanced by incorporating open space and a vegetative buffer as part of the project. The vegetative buffer would include plantings responsive to fuel management policies and all City fuel management standards would be met.

The proposed project would include a robust fire protection system as required by the California Building Code. Fire sprinkler systems and ignition resistant structures have a very high success rate for confining fires or extinguishing them. Additionally, there are two fire stations within 2 miles of the project site: Orange Fire Department Station No. 8, which is 1.75 miles from the project site, and Orange County Fire Authority Station No. 23, which is 0.64 mile from the project site. Emergency response times from the City of Orange Fire Department would be approximately 3 minutes and 45 seconds. Fire stations near the project site would increase the likelihood of successful initial attacks to limit the spread of wildfires. The fire protection system on-site would provide protection from on-site fires spreading to off-site vegetation through the required fuel modification zone. Accidental fires within the landscape or structures in the project area would have limited ability to spread. Landscaping throughout the project site and on its perimeter would be highly maintained, and much of it would be irrigated, which would further reduce its ignition potential.

In addition, RDEIR Section 3.8, Hazards and Hazardous Materials, Mitigation Measure HAZ-6 will be implemented to require the applicant to prepare a Fuel Modification Plan for submission to the City of Orange for review and approval prior to the issuance of building permits, consistent with the Fire Department’s recommendation that the project meet the City’s fuel modification requirements.
As identified in the RDEIR, with implementation of project features, incorporation of open space areas and vegetative buffers as part of the project, compliance with City requirements for fuel modification, and Mitigation Measure HAZ-6, impacts would be less than significant.

**Master Response 6—Stewardship of Open Space**

**Summary of Relevant Comments**

Several commenters question who will be responsible for the maintenance and costs of the open space component of the project.

**Response**

The project will include approximately 68.5 acres of dedicated greenway and open space comprised of natural hillsides, re-established grasslands, a restored Santiago Creek riparian corridor, and a managed vegetation/fuel modification zone. As noted in an April 1, 2019 Memorandum from the City of Orange Community Development Director to the Director of OC Parks (included in Section 4: Errata, as Appendix S, as a component of the Specific Plan and Development Agreement, the project applicant is proposing to fund $4,100,000 in landscaping, trails, and other improvements for the Santiago Creek Greenway and open spaces. The amenities planned for these areas include the following:

- Multi-use trails providing public access to open space and the Santiago Creek environs;
- Tail paseos for hiking and bicycling access;
- Expansion of and connection to the 1,269-acre Santiago Oaks Regional Park;
- Trailside rest-stops;
- Trailhead, informational signage, shade shelters and kiosks and related amenities;
- Stormwater and flood control improvements;
- Managed vegetation and fuel modification; and
- Passive outdoor uses.

In addition, the applicant is funding an additional $3,000,000 for trails, equestrian, and recreational amenities in the East Orange Area. Among other things, the applicant is proposing to dedicate the 51-acre former Ridgeline Golf Course site to the City for future open space and recreational uses. Please refer to Errata Appendix S, the City’s April 1, 2019 Memorandum, for further details on the wide range of open space and greenway amenities the proposed project would provide to future residents of the proposed project and the community.

Pursuant to the provisions in the Specific Plan, page 8-3, all public trails and open space (except the easement for fuel modification zone maintenance) shall be offered to Orange County, the City of Orange, or another suitable public entity as a publically available trail system. All conveyances will be subject to specific guidelines established in conformance with City standards and project approvals. Unless and until the applicant’s offer of conveyance is accepted, the public trails will be privately owned and maintained by the Master HOA or a similar entity.

As stated in RDEIR Section 2, Project Description, page 2-50, the Santiago Creek Greenway Alliance recommends that the applicant convey the open space grasslands and trails to OC Parks for
maintenance and stewardship. In the event the applicant conveys the open space grasslands and trails to OC Parks, the applicant will enter into a Memorandum of Understanding (MOU) with OC Parks prior to approval of the Tentative Map for the Project. However, in the event that OC Parks will not provide management and maintenance for the open space grasslands and trails, management and maintenance would remain the responsibility of the HOA, another public agency, or a non-profit organization, including long-term management, as part of the proposed project. The project proponent will provide funding for improvements within the Santiago Creek Greenway. The project applicant will enter into an agreement with the HOA, non-profit, public agency, or similar entity, prior to approval of the Tentative Map for the project, to ensure that responsibility for construction of improvements and maintenance is adequately addressed. The agreement will include a funding mechanism to ensure adequate funding of open space improvements and subsequent maintenance. Additionally, pursuant to the terms of the Specific Plan, upon dedication of the Specific Plan’s open space in Planning Areas A and B to the City of Orange, County of Orange or other entity the applicant/developer will retain an easement for fuel modification zone maintenance at the time of final mapping. This ensures that responsibility for this important maintenance area is clearly established. Responsibility for open space grasslands and trails management and maintenance will be discussed with OC Parks as part of the ongoing development process.

A financing mechanism will be established for the stewardship of open space within the project, prior to the dedication to a public agency or non-profit organization.

**Master Response 7—Applicability of SMARA**

**Summary of Relevant Comments**

Several commenters made comments relating to the Surface Mining and Reclamation Act (SMARA) of 1975 (Public Resources Code [PRC], §§ 2710-2796). Commenters questioned whether SMARA applies to the site or the project and whether a reclamation plan is required.

**Response**

As discussed in RDEIR Section 3.11, Mineral Resources, page 3.11-3, surface mining operations ceased on the project site prior to January 1, 1976. Under SMARA, a mining reclamation plan is required only for post-1975 mining operations. As such, a mining reclamation plan under SMARA is not required for the project site. This issue was fully evaluated in 2003 by the State Office of Mine Reclamation (OMR) and by the City. It was at the time that the OMR and the City determined that SMARA did not apply to the site. This analysis is fully set forth in Appendix M of the RDEIR.

Further, SMARA applies to surface mining, and does not apply to grading projects that are moving earth from one place to another. Therefore, grading activities for the project pursuant to the Sand and Gravel Extraction District (SG) zone or a valid grading permit would not be subject to SMARA.

**Master Response 8—Site Environmental Conditions**

**Summary of Relevant Comments**

Several commenters raised issues regarding environmental conditions on the project site, including questions about soil contamination, cleanup, and handling of mine waste. These included comments that additional soils investigation should be performed, comments about the proximity of home sites
to the County’s closed Villa Park landfill and the possibility of methane migration affecting the homes, and comments that the RDEIR should be recirculated again for preparation of revised environmental site assessments.

Response

The RDEIR recognizes and discusses the potential for hazardous soils and identifies Mitigation Measure HAZ-2b as required mitigation. The mitigation would require that any existing potentially hazardous conditions be abated in accordance with DTSC standards as part of the development of new residential uses. Further, the mitigation requires that all contaminated soils “be excavated and disposed of off-site in accordance with the rules and regulations of the United States Department of Transportation (DOT), United States Environmental Protection Agency (EPA), California Environmental Protection Agency (Cal/EPA), California Occupational Health and Safety Administration (Cal/OSHA), and any local regulatory agencies.” The applicant is required to submit documentation to the City of Orange in the form of confirmatory soil sampling results verifying that this mitigation measure was successfully implemented as part of the grading permit application for this property. Refer to RDEIR Section 3.8, Hazards and Hazardous Materials, for further discussion. To clarify and clearly articulate established abatement procedures identified in RDEIR Section 3.8, Hazards and Hazardous Materials, the text below is added to Mitigation Measure HAZ-2a to ensure that further investigation and implementation occurs. The clarifying text is shown below, and is also included in Section 4, Errata, of this Final EIR.

These regulations, procedures and documentation requirements provide sufficient performance standards to satisfy CEQA. The mitigation measures below require compliance with applicable DTSC regulations and require any necessary remediation to meet DTSC standards. “[A] condition requiring compliance with regulations is a common and reasonable mitigation measure and may be proper where it is reasonable to expect compliance” (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906). Here the project is predicated on compliance with numerous State and federal standards that are enforceable and it is reasonable to expect compliance (Citizens Opposing a Dangerous Env’t v. County of Kern (2014) 228 Cal.App.4th 360, 383 [compliance with Federal Aviation Administration procedures held to be appropriate mitigation for aviation safety impacts]).

MM HAZ-2a  
A supplemental Phase II Environmental Site Assessment shall be conducted to further delineate the vertical and lateral extent of the contamination. The proposed enclosed structures shall be situated strategically, using supplemental Phase II Environmental Site Assessment data and DTSC’s review thereof, so that structures will not interfere with future remediation of any potential landfill gas migration; this shall be demonstrated in connection with approval of any tentative maps for the project to allow for future remediation of any potential landfill gas migration. Prior to issuance of building permits for dwelling units in areas of the project site where vapor intrusion has the potential to occur, the applicant shall prepare and submit plans to the City of Orange, DTSC, or the Local Enforcement Agency [which is the County of Orange Environmental Health Division] identifying vapor intrusion abatement measures for trichloroethylene (TCE) and methane. Areas where vapor
intrusion has the potential to occur are those identified in the Phase II Environmental Site Assessment.

The Phase II Environmental Site Assessment shall be conducted in substantial compliance with applicable guidance documents, including but not limited to the DTSC Advisory—Active Soil Gas Investigation and Final Guidance for Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. The Phase II Environmental Site Assessment shall use current DTSC HHRA Note 3 and Regional Screening Levels established by the U.S. Environmental Protection Agency. Following preparation of the Phase II Environmental Site Assessment, a soil risk management plan shall be prepared to address any discovery of previously unknown contamination and shall be submitted to DTSC. These reports shall be conducted pursuant to applicable DTSC advisories, and abatement shall be implemented as directed by DTSC. Such abatement measures may include but are not limited to vapor barriers or passive/active venting systems, as determined by the appropriate regulatory agency, unless determined not to be necessary by the City in consultation with the Local Enforcement Agency. All occupied structures within a 1,000 foot radius of the landfill shall include the following structural controls to limit the potential for landfill gas accumulation (unless such controls are determined not to be necessary by the City in consultation with the Local Enforcement Agency): (1) a geomembrane between the slab and the subgrade; (2) a permeable layer with venting pipe between the geomembrane; and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures. The soil risk management plan shall include, among other provisions, worker safety practices and procedures for discoveries of hazardous materials, including those already identified at the site. If DTSC concludes that additional mitigation is needed, the applicant shall work with DTSC and the City to jointly develop additional mitigation measures that meet residential standards.

The approved abatement measures shall be incorporated into project building plans. Design plans for: 1) any occupied structures within 1,000 feet of the landfill boundary; and/or 2) structural systems to prevent gas-related hazards are required to be reviewed and approved by the Local Enforcement Agency (which is the County of Orange Environmental Health Division).

Prior to issuance of grading permit for construction of the residential portion of the project, the project applicant shall retain a qualified hazardous materials contractor to remove all soil containing Total Petroleum Hydrocarbons in excess of residential development standards set forth by the California Department of Toxic Substances Control (DTSC) or other applicable regulatory agency. Soil removal and disposal shall occur in accordance with DTSC (or other applicable agency) guidelines. Additional groundwater sampling shall be conducted under the guidance of DTSC, focused on the area within 1,000 feet of the Villa Park landfill, to assess whether TPH, methane, and/or VOCs have impacted groundwater at levels that generate either significant human health or ecological risk, which was encountered at depths of 20 to 50 feet bgs. If the groundwater is affected, a multi-media risk assessment shall be
conducted under the guidance of DTSC, and abatement measures as required by DTSC shall be implemented, subject to final confirmation by the City.

The applicant shall submit documentation to the City of Orange in the form of confirmatory soil and groundwater sampling results verifying that this mitigation measure was successfully implemented as part of the grading permit application for this property. All environmental investigations, sampling and/or remediation for the project site shall be conducted under a workplan approved and overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup, such as DTSC and/or the Regional Water Quality Control Board (RWQCB). As part of proper construction operations and maintenance, any construction areas that are found to contain contaminated soils shall be excluded using a security fence. All contaminated soils shall then be excavated and disposed of off-site in accordance with the rules and regulations of: US Department of Transportation (USDOT), USEPA, CalEPA, CalOSHA, and any local regulatory agencies. All retention and detention features used during construction would be lined to prevent infiltration through contaminated soils. Post-construction retention features shall be lined to prevent infiltration of groundwater.

In response to the comment that the RDEIR should be recirculated for further review of environmental site issues, responses to the comments, and revised mitigation measures in response to the comments have been provided. Recirculation is required in situations such as when there is a new or substantially more severe significant environmental impact, and is not required when the information in a Final EIR includes responses to comments that clarify or amplify the information in a draft EIR. In this case, the responses clarify and amplify the information from the RDEIR, and not trigger CEQA's requirements for recirculation.

Master Response 9—Soil Import/Export Numbers

Summary of Relevant Comments

Several commenters raised issues regarding the amount of clean soils that would have to be imported to the project site, and the amount of additional mine waste that would need to be exported from the site to develop the proposed project.

Response

As noted in RDEIR Section 2, Project Description, page 2-2, the previously mined portions of the site were “backfilled,” in which unsuitable materials are excavated and replaced with fill, pursuant to a grading permit issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material would be imported to the site during the process, including concrete, asphalt, and rock that would be crushed on-site. Approximately 2,000 cubic yards of material was anticipated to be excavated from the site for reuse and would be blended with the crushed import material for a total of 225,000 cubic yards of backfill. RDEIR Section 3.11, Mineral Resources, further evaluates mineral resource extraction activities.

During grading, the project would import approximately 877,000 cubic yards of new material, and remove 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck
would have a capacity of 10 cubic yards per load (plus the return of one empty truck). Based on this conservative assumption, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period. Thus, using this estimate, the technical analyses and discussions in the RDEIR assumes the “worst case” scenario for the project. This allows the reader and decision makers to fully understand potential environmental impacts.

Regarding the accuracy of the required import and export of soils, and the relationship between the Project Description and the Geotechnical Investigation contained in Appendix I, the Project Description provides accurate numbers for the amount of import and export required by the project. The information provided in Appendix I relates to the larger Rio Santiago Specific Plan analysis, as one commenter points out. The purpose of including the information in Appendix I, which includes information from the Rio Santiago Specific Plan project, is to provide additional support for the characterization of subsurface soils and the likely methods of construction required.

**Master Response 10—General Comments on the Project, General Opposition**

**Summary of Relevant Comments**
Numerous commenters expressed general opposition to the project, without making specific comments on environmental issues related to the project or on the sufficiency of the RDEIR’s analysis of environmental impacts. Some commenters expressed general support for the project.

**Response**
The comments containing personal opinions expressing general support for, or opposition to, the project are noted and will be part of the administrative record that will be before City decision makers and that will be considered in deciding whether to approve the project or not, and subject to what conditions any approval would be issued. Similarly, opinions about the general desirability or merits of the project, or comments about economic or political considerations of the project, will be part of the record before the decision makers and will be considered in evaluating the proposed project.

CEQA requires that the Final Environmental Impact Report (Final EIR) address comments on the adequacy of the RDEIR and on environmental issues related to the project (PRC § 21091(d)(2)(B); CEQA Guidelines § 15088(c)). CEQA considerations are limited to environmental issues and the potential impacts of the project on the environment. The environmental issues raised in the various comment letters have been addressed by this Final EIR in the Master Responses and in the individual responses to comment letters, and no further response is required to general comments opposing the project or expressing opinions.
SECTION 3: RESPONSES TO WRITTEN COMMENTS

3.1 - List of Authors

A list of public agencies, organizations, and individuals that provided comments on the Recirculated Draft Environmental Impact Report (RDEIR) is presented below. Each comment has been assigned a code. Individual comments within each communication have been numbered so comments can be cross-referenced with responses. Following this list, the text of the communication is reprinted and followed by the corresponding response.

Additionally, the City of Orange received 324 letters that commented on the project but did not provide comments on any aspect of the RDEIR’s analysis. In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15003(g), which provides, “The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind,” copies of these letters are provided at the end of this section; however, because these letters express general opposition to the project and do not contain comments specific to the analysis contained within the RDEIR or any environmental issue, they are addressed collectively via a master response provided in Section 2, Master Responses.

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Individuals

Addison Adams ................................................................................................................ ADAMS
Kaitlin Agee ...................................................................................................................... AGEE
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Toni Bradley .................................................................................................................. BRADLEY 2
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Jackie Brodsky ............................................................................................................... BRODSKY 2
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Todd Busby .................................................................................................................... BUSBY 2
Sharon Butterfield ........................................................................................................ BUTTERFIELD
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Mary Carlson .................................................................................................................. CARLSON
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Gregg DeNicola ............................................................................................................ DENICOLA
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Diana Des Champs ........................................................................................................ DES CHAMPS 2
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Rich Dobson ................................................................................................................ DAN
Steve Ducolon ................................................................................................................ DUCOLON
Michelle Duman .......................................................... DUMAN
Steve Eimers .......................................................... EIMERS
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Susan J. Elgin .......................................................... ELGIN
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Jessica Farnham ...................................................... FARNHAM
Annette Feliciani ....................................................... FELICIANI
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Toni and John Finn ................................................... FINN
Hollis W. Fitz .......................................................... FITZ
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Andy and Maryann Gaither ..................................... GAITHER
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Robert Garza ........................................................... GARZA 2
Marian Gaudette ..................................................... GAUDETTE
Mike and Kathy Gerakos ........................................ GERAPOS
Robert Gerger ........................................................ GERICER
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Keith Gladstien ......................................................... GLADSTIEN
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Anthony Gressak ................................................... GRESSAK
Martha Guerrero-Phlaum ........................................ GUERRERO
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Scott Hemmeter ....................................................... HEMMETER 2
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Karen Hersom ......................................................... HERSOM
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Arlene Hillman ....................................................... HILLMAN 1
Charles Hillman ....................................................... HILLMAN 2
Barbara Hillman ..................................................... HILLMAN 3
David Hillman .......................................................... HILLMAN 4
Doug Hillman .......................................................... HILLMAN 5
Vickie Homer .......................................................................................................................... HOMER
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Sarah. Huff ............................................................................................................................ HUFF 2
Tim and Nancy Hume ........................................................................................................... HUME
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Teresa Johnston ..................................................................................................................... JOHNSTON
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Stephanie Lesinski .................................................................................................................. LESINSKI 2
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Kimiya Leuteritz ..................................................................................................................... LEUTERITZ
Kathie and Herb Levy ............................................................................................................. LEVY
Chris Lovell .............................................................................................................................. LOVELL
Barbara Luther ......................................................................................................................... LUTHER
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John Marzt .............................................................................................................................. MARZT
Mark Massie ............................................................................................................................. MASSIE
Errol Mathieu ............................................................................................................................ MATHIEU
Packy McFarland ...................................................................................................................... MCFARLAND
Marilyn McNulty ....................................................................................................................... MCNULTY
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Jaclyn Mitten ............................................................................................................................ MITTEN
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Kathryn Monteleone .................................................................................................................. MONTELEONE
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Judy Moore ............................................................................................................................... MOORE 2
Mark Moore ................................................................. MOORE 3
Michael Moore ............................................................... MOORE 4
Sharon Mule ................................................................. MOU LE
Shirley Mullen ................................................................. MULLEN
Jennifer Naughton ....................................................... NAUGHTON
Cynthia Nelson .............................................................. NELSON
Rosemary Nguyen ........................................................ N GUYEN
George Nicholas ............................................................ NICHOLAS
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Sherry Panttaja ................................................................. PANTTAJA 1
Tim Panttaja ................................................................. PANTTAJA 2
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Fran Pendray ................................................................. PENDRAY 1
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Joe Pritts ................................................................. PRITTS 2
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Leonard Quant .............................................................. QUANT 2
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Deborah Redfern ........................................................ REDFERN
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J. Vincent Reina ............................................................ REINA 3
John Reina ................................................................. REINA 4
John Reina ................................................................. REINA 5
Theodore Reina ............................................................ REINA 6
Kay Ressler ................................................................. RESSLER
Kim Riechmann .......................................................... RIECHMANN
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Joel Robinson ............................................................. ROBINSON 2
Howard Rothfeder ....................................................... ROTHFEDER
Ron Rothschild ........................................................... ROTHSCILD
Greg Rush ................................................................. RUSH
Jody Sadeghipour ......................................................... SADEGHIPOUR
Laura and David Sandoval .............................................. SANDOVAL
3.2 - Responses to Comments

3.2.1 - Introduction

In accordance with the CEQA Guidelines Section 15088, the City of Orange, as the lead agency, evaluated the comments received on the RDEIR (State Clearinghouse No. 2017031020) for the Trails at Santiago Creek Specific Plan, and has prepared the following responses to the comments received. This Response to Comments document becomes part of the Final EIR for the project in accordance with CEQA Guidelines Section 15132.
3.2.2 - Comment Letters and Responses

The comment letters reproduced in the following pages follow the same organization as used in the List of Authors.
Robert Garcia
City of Orange
300 E. Chapman Avenue
Orange, CA 92666

Subject: Trails at Santiago Creek Project
SCH#: 2017031020

Dear Robert Garcia:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 28, 2018, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project’s ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

“A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation.”

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

[Signature]
Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency
# Document Details Report
## State Clearinghouse Data Base

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<td><strong>Lead Agency</strong></td>
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**Type** EIR  
**Draft EIR**

**Description**  
The proposed project would establish a specific plan consisting of: a 40.2-acre Greenway/Santiago Creek open space environment in the north portion of the site and a 28.3-acre Grasslands/Open Space element in the eastern portion of the site abutting the adjacent Reserve residential neighborhood, including a managed vegetation area along the north facing slopes of the Santiago Creek. A 40.7 acre single family detached residential parcel, consisting of 128 units, is proposed in the south-central and southwestern portion of the site abutting the adjacent county-owned vacant parcel west of the project site. The residential neighborhood will be accessed from Santiago Canyon Rd across from Nicky Way.

### Lead Agency Contact

<table>
<thead>
<tr>
<th>Name</th>
<th>Robert Garcia</th>
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<tbody>
<tr>
<td>Agency</td>
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<tr>
<td><strong>Phone</strong></td>
<td>(714) 744-7231</td>
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<tr>
<td><strong>Email</strong></td>
<td><a href="mailto:rgarcia@cityoforange.org">rgarcia@cityoforange.org</a></td>
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<tr>
<td><strong>Address</strong></td>
<td>300 E. Chapman Avenue</td>
</tr>
<tr>
<td><strong>City</strong></td>
<td>Orange</td>
</tr>
<tr>
<td><strong>State</strong></td>
<td>CA</td>
</tr>
<tr>
<td><strong>Zip</strong></td>
<td>92666</td>
</tr>
</tbody>
</table>

### Project Location

<table>
<thead>
<tr>
<th><strong>County</strong></th>
<th>Orange</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City</strong></td>
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</tr>
<tr>
<td><strong>Region</strong></td>
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</tr>
<tr>
<td><strong>Lat / Long</strong></td>
<td>33° 48' 55&quot; N / 117° 47' 17&quot; W</td>
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<tr>
<td><strong>Cross Streets</strong></td>
<td>Cannon St and East Santiago Canyon Rd</td>
</tr>
<tr>
<td><strong>Parcel No.</strong></td>
<td>370-141-19, -041-12, -25</td>
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<tr>
<td><strong>Township</strong></td>
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<td>23</td>
</tr>
<tr>
<td><strong>Base</strong></td>
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</tr>
</tbody>
</table>

### Proximity to:

- **Highways**
- **Airports**
- **Railways**
- **Waterways** Santiago Creek
- **Schools** Salem Lutheran School
- **Land Use** LU: Resource extraction, Z: R-1-8, S-G, GP: Low density res

### Project Issues

Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Aesthetic/Visual

### Reviewing Agencies

Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 12; Regional Water Quality Control Board, Region 8; Department of Toxic Substances Control; Native American Heritage Commission; State Water Resources Control Board, Division of Drinking Water; Air Resources Board, Transportation Projects

**Date Received** 11/14/2018  
**Start of Review** 11/14/2018  
**End of Review** 12/28/2018
November 26, 2018

TO: CEQA LEAD AND REVIEWING AGENCIES

RE: ANNOUNCEMENT OF CHANGE, NEW CEQA DATABASE

The Office of Planning and Research, State Clearinghouse (SCH) is preparing the transition to a new CEQA database. We would like to inform you that our office will be transitioning from providing hard copies of certain letters and notices to an electronic mail system. Copies of environmental documents, notices and comment letters from state agencies will also be available for view and download.

CEQA lead and reviewing agencies should include an e-mail address (at least one (1)) to receive electronic notifications.

The letters and notifications from the SCH that will now be e-mailed include: acknowledgement of receipt and close of environmental documents, comments received from state reviewing agencies on environmental documents, as well as notices of determinations and exemptions.

Updates on when the database will be accessible for lead agencies to upload and submit environmental documents and notices, along with the ability for state agencies to review and comment on environmental documents through the database, will be provided as those functions become available.

For this transition process, please send your e-mail address to:

State.clearinghouse@opr.ca.gov

Should you have any questions, please do not hesitate in contacting the State Clearinghouse at (916) 445-613 or stats.clea1nghouse@opr.ca.g0v.
State Agencies

Office of Planning and Research (OPR)

Response to OPR-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to OPR-2
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.
December 21, 2018

Robert Garcia
City of Orange
300 E. Chapman Avenue
Orange, CA 92666

File: IGR/CEQA
SCH: # 2017031020
12-ORA-2017-01023
SR 261; PM 5.494
SR 55; PM 15.222

Dear Mr. Garcia,

Thank you for including the California Department of Transportation (Caltrans) in the review of the Recirculated Draft of the Environmental Impact Report (RDEIR) for the proposed Trails at Santiago Creek Specific Plan Project. The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California’s economy and livability.

The RDEIR evaluates the development of 128 dwelling units on approximately 40.7 acres of the approximately 109.2-acre site, with varying lot sizes, including lots larger than 8,000 square feet. The majority of the project site (62.7 percent) is intended for the enhancement and preservation of the natural greenway/open space and Santiago Creek environs, as well as re-establishing open grasslands in areas that have been denuded by the project site’s history of commercial operations, totaling approximately 68.5 acres. Recreational trails will provide public access to the enhanced revegetated interior of the site.

The project is located within the City of Orange, in north-central Orange County. The site is generally located to the east of State Route 55; to the west of State Route 261; approximately 2 miles to the north of Chapman Avenue; on the north side of East Santiago Canyon Road, between Orange Park Boulevard on the east and Cannon Street on the west; and south of Mabury Avenue.

Caltrans is the responsible agency that both owns and operates State Route (SR) 55 and SR 261, and after reviewing the document, has the following comments:

**Traffic Operations:**

1. The Traffic Impact Study (TIS) indicates project trip assignments to the intersections of
   - E. Santiago Canyon Rd. at Northbound SR 241 off-ramp,
   - E. Santiago Canyon Rd. at Northbound SR 261 off-ramp, and
   - E. Santiago Canyon Rd. at Southbound SR 241 off/on-ramp. These intersections must be included in the TIS and evaluated to assess potential significant impacts to the
State Highway System in conformance with the Trip Generation Thresholds criterion in the Caltrans Traffic Impact Study Guidelines, available at:

Transportation Planning

1. We strongly encourage the City to coordinate with the County of Orange to install sidewalks along the Villa Park Landfill frontage, including East Santiago Canyon Road and Cannon Street. Constructing sidewalks will close a gap in the pedestrian network around and, therefore, increase connectivity.
   o The City should also consider constructing a sidewalk along the eastbound stretch of East Santiago Canyon Road between Nicky Way and Orange Park Boulevard. Currently, there is no existing sidewalk in this area.

2. We recommend that the City add Class II bike lane transition striping through the free right turn lane on westbound East Santiago Canyon Road and on northbound Cannon Street. We also recommend adding this Class II bike lane transition striping through the right turn only lane on southbound Cannon Street. This measure will help guide bicyclists through the conflict zone and increase bicyclists’ visibility for on-coming vehicles.
   o The City should consider using green paint to highlight the bike lane transition zone. It should also consider increasing signage for bicyclists at these locations. Both measures will increase the drivers’ awareness of bicyclists and warn drivers of any potential conflicts.

Please continue to coordinate with Caltrans for any future developments that could potentially impact State transportation facilities. If you have any questions, please do not hesitate to contact Julie Lugaro at 657-328-6368 or Julie.lugaro@dot.ca.gov.

Sincerely,

SCOTT SHELLEY
Branch Chief, Regional-IGR-Transit Planning
District 12

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California’s economy and livability"
California Department of Transportation (CALTRANS)

Response to CALTRANS-1
Comment noted. The comment consists of introductory remarks that do not raise any questions about the environmental analysis.

Response to CALTRANS-2
Based on the Existing AM and PM peak-hour Level of Service (LOS) at the three requested study locations shown in Attachment B and the Highway Capacity Manual (HCM)/LOS calculation worksheets, attached, and the criteria contained within the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002), no further traffic analyses are required for the proposed project. The proposed project is forecast to generate less than 49 AM or PM peak-hour trips at the study locations and the three intersections currently operate at LOS C or better. Therefore, no further analyses are required consistent with the thresholds defined in Section II.A, Trip Generation Thresholds of the Traffic Impact Analysis (TIA) Guide.

Response to CALTRANS-3
Comment noted. This comment recommends the City coordinate with the County of Orange to install sidewalks along Villa Park Landfill frontage, including East Santiago Canyon Road and Cannon Street. This comment does not raise any potentially significant environmental issues.

Response to CALTRANS-4
Comment noted. This comment recommends the City consider constructing a sidewalk along the eastbound stretch of East Santiago Canyon Road between Nicky Way and Orange Park Boulevard. This comment does not raise any potentially significant environmental issues.

Response to CALTRANS-5
Comment noted. This comment recommends that the City add Class II bike lane transition striping through the free right turn lane on westbound East Santiago Canyon Road and northbound Cannon Street. The comment continues to recommend adding Class II bike lane transition striping through the right turn only lane on southbound Cannon Street. This comment does not raise any potentially significant environmental issues.

Response to CALTRANS-6
Comment noted. This comment recommends the City consider using green paint to highlight the bike lane transition zone and increasing signage for bicyclists at these locations. This comment does not raise any potentially significant environmental issues.

Response to CALTRANS-7
Comment noted. The comment provides a summary of Caltrans staff contact information. No further response is required.
December 21, 2018

Mr. Robert Garcia  
City of Orange Planning Division  
300 E. Chapman Avenue  
Orange, CA 92666  
rvgarcia@cityoforange.org

Subject: Comments on the Recirculated Draft Environmental Impact Report for the Trails at Santiago Creek Project, Orange, CA (SCH# 2017031020)

Dear Mr. Garcia:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced draft Recirculated Draft Environmental Impact Report (RDEIR) for the Trails at Santiago Creek, dated November 14, 2018. The Department provided comments on the Notice of Preparation for the project in a letter dated March 22, 2017, and on the Draft Environmental Impact Report in a letter dated April 9, 2018. The following statements and comments have been prepared pursuant to the Department’s authority as Trustee Agency with jurisdiction over natural resources affected by the project (California Environmental Quality Act, [CEQA] Guidelines §15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (CESA; Fish and Game Code § 2050 et seq.) and Fish and Game Code section 1600 et seq. The Department also administers the Natural Community Conservation Planning (NCCP) program. The City of Orange (City) is a non-participating landowner under the Central/Coastal Orange County NCCP/Habitat Conservation Plan (HCP).

The 109-acre project area is located at 6118 East Santiago Canyon Road within the City, east of State Route 55 and west of State Route 261. The project, which has a history of surface mining and materials recycling, would develop 128 single family homes on 40.7 acres, leaving the remaining 68.5 acres as open space with recreational trails. A portion of Santiago Creek, which contains perennial flow, runs through the project area. This riparian area has been documented to support least Bell’s vireo (Vireo bellii pusillus), which is listed as endangered under CESA and the federal Endangered Species Act (ESA). Coastal California gnatcatcher (Polioptila californica californica), which is a state species of special concern and ESA listed-threatened, is located in the upland portions of the project area.

The Department thanks the City for addressing many of its concerns and incorporating its comments into the RDEIR, per its April 9, 2018, letter.; The Department has remaining concerns regarding long-term maintenance of open space areas, proper use of mitigation banks/in-lieu fee programs, and minimizing the spread of Polyphagous and Kuroshio shot hole borers (ISHBs). The Department offers the following comments and recommendations to assist the City in avoiding or minimizing potential project impacts on biological resources.
1. Given that the entity that would assume long term stewardship of on-site open space areas has not been specified (page 2-50), the Department requests to approve the entity when it has been selected. The Department also requests to review and approve any habitat mitigation and monitoring plan or ongoing maintenance plan for these open space areas. The finalized and approved documents should also be incorporated by reference into applicable homeowner’s association Declaration of Covenants, Conditions, and Restrictions.

2. Mitigation measures BIO-2b, BIO-3, and BIO-4 reference the potential for mitigation to occur at an off-site agency-approved mitigation bank or through an in-lieu fee program, such as that operated by the Santa Ana Watershed Authority (SAWA). The only certified, Department-approved mitigation bank whose service area extends to the project site is Soquel Canyon Mitigation Bank. Currently, this bank does not have the creation credits necessary to accommodate the Department’s policy of “no net loss” of either wetland habitat values or acreage, nor does it sell species-specific credits (i.e., least Bell’s vireo credits). Regarding in-lieu fees, the in-lieu fee program available through the NCCP/HCP for non-participating landowners only applies to Coastal Sage Scrub Identified Species and cannot be used to mitigate for impacts to riparian habitats (NCCP/HCP pg. II-163 and II-405); furthermore, participation in SAWA’s invasive species removal in-lieu fee program would also fail to meet the Department’s no net loss policy for wetland habitat values. The Department requests that BIO-2b, BIO-3, and BIO-4 are amended to reflect this information.

3. The ISHBs are invasive ambrosia beetles that introduce fungi and other pathogens into host trees. The adult female (1.8-2.5 mm long) tunnels galleries into the cambium of a wide variety of host trees, where it lays its eggs and propagates the Fusarium fungi species for the express purpose of feeding its young. These fungi cause Fusarium dieback disease, which interrupts the transport of water and nutrients in at least 58 reproductive host tree species, with impacts to other host tree species as well. With documented occurrences throughout Southern California, including Santiago Oaks Regional Park east of the project area, the spread of invasive shot hole borers (ISHBs) could have significant impacts in local ecosystems. Therefore, with regard to ISHBs, the Department recommends the final EIR include the following:

a. a thorough discussion of the direct, indirect, and cumulative impacts that could occur from the potential spread of ISHBs as a result of proposed activities in the final EIR;

b. an analysis of the likelihood of the spread of ISHBs as a result of the invasive species’ proximity to above referenced activities;

c. figures that depict potentially sensitive or susceptible vegetation communities within the project area, the known occurrences of ISHB within the project area (if any), and ISHB’s proximity to above referenced activities; and

d. a mitigation measure or measure(s) within the final EIR that describe Best Management Practices (BMPs) that bring impacts of the project on the spread of ISHB below a level of significance. Examples of such BMPs include:

i. education of on-site workers regarding ISHB and its spread;

ii. reporting sign of ISHB infestation, including sugary exudate ("weeping") on trunks or branches and ISHB entry/exit-holes (about the size of the tip of a ballpoint pen), to the Department and UCR’s Eskalen Lab;
iii. equipment disinfection;
iv. pruning infected limbs in infested areas where project activities may occur;
v. avoidance and minimization of transport of potential host tree materials;
vi. chipping potential host materials to less than 1 inch and solarization, prior to delivering to a landfill;
vii. chipping potential host materials to less than 1 inch, and solarization, prior to composting on-site;
viii. solarization of cut logs; and/or
x. burning of potential host tree materials.

Please refer to UCR's Eskalen lab website for more information regarding ISHBs: http://eskalenlab.ucr.edu/pshb.html.

The Department appreciates the opportunity to comment on the RDEIR for this project and to assist the City in further minimizing and mitigating project impacts to biological resources. The Department requests that a written response to its comments be provided in the final EIR, as required per CEQA Guidelines section 15088(d). If you have any questions or comments regarding this letter, please contact Jennifer Turner, Environmental Scientist at (858) 467-2717 or jennifer.turner@wildlife.ca.gov.

Sincerely,

Gail K. Sevrens
Environmental Program Manager
South Coast Region

cc: Colleen Draguesku, U.S. Fish and Wildlife Service
    Scott Morgan, State Clearinghouse
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**California Department of Fish and Wildlife (CDFW)**

**Response to CDFW-1**  
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

**Response to CDFW-2**  
Comment noted and the City appreciates the recommendations provided by CDFW. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

**Response to CDFW-3**  
As stated in RDEIR Section 2, Project Description, page 2-50, in the event that OC Parks will not provide management and maintenance for the open space grasslands and trails, management and maintenance would be the responsibility of the Homeowner’s Association, another public agency, or a non-profit organization as part of the proposed project. The project proponent will provide funding for improvements within the Santiago Creek Greenway. Responsibility for open space grasslands and trails management and maintenance will be discussed with OC Parks as part of the ongoing process. Where the City and OC Parks agree to consult with CDFW, the CDFW recommendations regarding habitat management and maintenance will be appreciated. A condition of approval will be included regarding the CDFW’s review of the habitat mitigation monitoring plan.

**Response to CDFW-4**  
Mitigation Measure BIO-2b does not reference an off-site agency-approved mitigation bank or an in-lieu fee program nor does the mitigation measure mention creation credits. However, Mitigation Measures BIO-3 and BIO-4 have been revised and included in Section 4, Errata, of this Final EIR to clarify the following:

**MM BIO-3**  
Prior to the issuance of any grading permit in the areas designated as sensitive riparian communities (e.g., southern cottonwood-willow riparian forest or black willow scrub/ruderal), the project applicant shall demonstrate to the satisfaction of the City that either of the following have been or will be accomplished:

- On- or off-site restoration or enhancement of sensitive riparian communities (e.g., southern cottonwood-willow riparian forest) at a ratio no less than 1:1 for permanent impacts. Temporary impacts will be restored to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). If any off-site restoration or enhancement is required, it will be provided at a ratio no less than 1:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., Santa Ana Watershed Association [SAWA] Soquel Canyon Mitigation Bank).  
- If mitigation is to occur on-site and/or off-site (i.e., not an in-lieu fee program), a mitigation and monitoring plan shall be prepared. The plan shall focus on the

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1 Soquel Canyon Mitigation Bank is the only certified, CDFW-approved mitigation bank whose service area extends to the project site. Currently, this bank does not have the creation credits necessary to accommodate the CDFW’s policy of “no net loss” of either wetland habitat values or acreage, nor does it sell species-specific credits (i.e., least Bell’s vireo credits).
creation of equivalent habitats within disturbed habitat areas of the project site and/or off-site. In addition, the plan shall provide details as to the implementation of the plan, maintenance, and future monitoring. Mitigation for impacts to sensitive riparian communities shall be accomplished by on- or off-site restoration and/or enhancement (e.g., transplantation, seeding, and/or planting/staking of sensitive riparian species; salvage/dispersal of duff and seed bank; removal of large stands of giant reed within riparian areas).

**MM BIO-4**

Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project applicant shall obtain a CWA Section 404 permit from the USACE, a CWA Section 401 permit from the Regional Water Quality Control Board (RWQCB), and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the CDFW. The following would be incorporated into the permitting, subject to approval by the regulatory agencies:

1. On- or off-site restoration or replacement of USACE/RWQCB jurisdictional waters of the United States/waters of the State at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). If any off-site restoration or enhancement is required, it will be provided at a ratio no less than 2:1 and may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., SAWASoquel Canyon Mitigation Bank).

2. On- or off-site restoration or enhancement of CDFW jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). If any off-site restoration or enhancement is required, it will be provided at a ratio no less than 2:1 and may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., Soquel Canyon Mitigation Bank).

**Response to CDFW-5**

The presence, or absence, of Invasive shot hole borers (ISHBs) within the project site is not known. However, if ISHB occurrences are documented within Santiago Oaks Regional Park east of the project site, then there is a high likelihood that ISHBs will spread to trees on the project site if they are not already present. Regardless, the potential spread of ISHBs within the project site may occur whether or not the proposed project is implemented. The spread of these destructive beetles is an existing problem and not an impact attributable to the proposed project.

The proposed project construction and operational activities could contribute to the potential spread of ISHBs to other areas if on-site trees are removed from the site and are infested with ISHB. However, the potential spread of ISHB is potentially speculative and would not be a potentially significant impact under CEQA at a project/specific plan level nor at a cumulative level. As such, the
following Best Management Practices (BMPs) are recommended as conditions of approval to minimize the potential spread of ISHB, as these are likely to be standard practices by most arborists working in infected areas:

a) education of on-site workers regarding ISHB and its spread;

b) reporting sign of ISHB infestation to the City and UC Davis's Eskalen Lab;

c) equipment disinfection after use in known infected areas;

d) pruning infected limbs in infested areas where project activities may occur;

e) avoidance and minimization of transport of potential host tree materials;

f) chipping potential host materials to less than 1 inch and solarization, prior to either on-site composting or delivery to a landfill;

g) solarization of cut logs; and/or

h) burning of potential host tree materials.

Response to CDFW-6
Comment noted and the CDFW assistance in mitigation of biological resource impacts is welcomed. Responses to these comments are included in the Final EIR for the project, as requested. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.
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December 27, 2018

Mr. Robert Garcia
City of Orange
Community Development Department, Planning Division
300 East Chapman Avenue
Orange, California 92886

RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT, TRAILS AT SANTIAGO CREEKS SPECIFIC PLAN, ORANGE, CALIFORNIA (STATE CLEARINGHOUSE 2017031020)

Dear Mr. Garcia:

The Department of Toxic Substances Control (DTSC) has received your Recirculated Draft Environmental Impact Report (RDEIR) for Trails at Santiago Creeks Specific Plan project. The project proposes the transformation of a rock and concrete materials recycling and backfilling operation to a single-family detached residential neighborhood. The RDEIR evaluates the development of 128 dwellings on approximately 40.7 acres of the approximately 109-acre site, with varying lots sizes including lots larger than 8,000 square feet.

The project site previously supported agricultural and mining activities and is adjacent to the closed Villa Park Landfill. As a result, there is the potential for (1) vapor intrusion of volatile organic compounds (VOCs) and methane into future dwelling units and (2) elevated levels of Total Petroleum Hydrocarbons (TPH) in soil. Vapor intrusion abatement measures (such as vapor barriers or passive/active venting systems) for VOCs and methane are required by City of Orange as a site mitigation measure. Another mitigation measure requires removal of TPH contaminated soil.

Based on the review of the submitted document, DTSC has the following comments:

1. RDEIR, Phase I/II Environmental Site Assessment, Page 3.8-1. Phase II Environmental Site Assessment Report (Phase II Report), dated May 16, 2011, indicated that TPH were detected at concentrations exceeding environmental
screening levels (ESLs) developed by California Regional Water Quality Control at Areas C (Former Sully Miller Maintenance Shop and Equipment Storage Area) and D (Materials Recycling Area). The Phase II Report also indicated that VOCs were detected at concentrations exceeding California Human Health Screening Levels (CHHSLs) at Area C and former underground storage and above ground storage tank locations. Further investigation to determine the vertical and lateral extent of the contamination is recommended as a mitigation measure. DTSC recommends the soil gas investigations be conducted in accordance with DTSC Advisory - Active Soil Gas Investigation (https://www.dtsc.ca.gov/SiteCleanup/upload/V1_ActiveSoilGasAdvisory_FINAL.pdf) and Final Guidance for evaluation and mitigation of Subsurface Vapor Intrusion to Indoor Air (https://www.dtsc.ca.gov/AssessingRisk/upload/Final_VIG_Oct_2011.pdf)

2. RDEIR, Phase I/II Environmental Site Assessment, Page 3.8-1 and Appendix J. Based on the Phase I Environmental Site Assessment, dated August 6, 2009, the groundwater is encountered at 20 to 50 feet below ground surface. Further investigation is recommended to determine whether the groundwater is impacted by TPH, methane and VOCs as these compounds were detected at 15 feet bgs in soil gas samples. If the groundwater is impacted, a multi-media risk assessment is recommended. DTSC recommends the risk assessment be conducted as part of Mitigation MM Haz-2a and in accordance with the Preliminary Endangerment Assessment Guidance Manual, section 2.5 (https://www.dtsc.ca.gov/PublicationsForms/upload/PEA_Guidance_Manual.pdf) and Human Health Risk Assessment (HHRA) Note 4 (https://www.dtsc.ca.gov/AssessingRisk/upload/NOTE-4-HHRA-Number-4-October-2016-revision-2016-10-26-FINAL-2.pdf)

3. RDEIR, Phase I/II Environmental Site Assessment, Page 3.8-1 and Appendix J. Please note that CHHSLs are no longer used by DTSC. For any recommended screening levels for constituents in soil, tap water, and ambient air, please see DTSC HHRA Note 3 (https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm) and Regional Screening Levels established by the United States Environmental Protection Agency (https://www.epa.gov/risk/regional-screening-levels-rsls).

4. Any further investigation, risk assessment, and remediation should be overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup. Due to the potential of vapor intrusion into residential properties, DTSC’s oversight is recommended. A request for DTSC’s oversight can be found at https://www.dtsc.ca.gov/SiteCleanup/Brownfields/voluntary-agreements-guide.cfm (click “Request for lead Agency Oversight Application”).

5. RDEIR, Section 3.8.6 Project Impacts and Mitigation Measures, Page 3.8-13 – Mitigation measures for vapor intrusion (MMHAZ-2a) and excavation of TPH
contaminated soil (MM HAS-2b) are proposed in this section. If the project cannot be remediated to achieve cleanup goals for unrestricted land use, a land use covenant and long-term indoor air and/or soil gas monitoring are required for the project site. For example, if a vapor mitigation measure such as vapor barrier or passive/active venting system is implemented, a land use covenant and indoor air/vapor gas monitoring should also be prepared for the project site. DTSC recommends any vapor intrusion mitigation to be implemented in accordance with DTSC Vapor Intrusion Mitigation Advisory (https://www.dtsc.ca.gov/SiteCleanup/upload/ VIMA_Final_Oct_20111.pdf)

Should you have any questions regarding this letter, please contact me at (714) 484-5392 or by email at ChiaRin.Yen@dtsc.ca.gov.

Sincerely,

Chia Rin Yen
Environmental Scientist
Brownfields Restoration and School Evaluation Branch
Site Mitigation and Restoration Program

cc: Governor’s Office of Planning and Research (via e-mail)
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
State.clearinghouse@opr.ca.gov

Mr. Dave Kerezis (via e-mail)
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kerezis@dtsc.ca.gov

Ms. Yolanda M. Garza (via e-mail)
Brownfields Restoration and School Evaluation Branch
Site Mitigation and Restoration Program
Yolanda.Garza@dtsc.ca.gov
**Department of Toxic Substances Control (DTSC)**

Response to DTSC-1
The comment provides background on the project and makes introductory remarks that do not raise comments or questions about the environmental analysis in the RDEIR. Comment noted.

Response to DTSC-2
The comment states an opinion that there is potential for vapor intrusion of volatile organic compounds (VOCs) and methane and total petroleum hydrocarbons (TPH) in soil. The commenter recommends vapor intrusion abatement measures and mitigation of TPH contaminated soil. Please see Master Response 8—Site Environmental Conditions.

Response to DTSC-3
The commenter recommends further investigation to determine the vertical and lateral extent of the on-site contamination, including soil gas investigations. Please see Master Response 8—Site Environmental Conditions. As indicated in that response, Mitigation Measure HAZ-2a requires a supplemental Phase II Environmental Site Assessment (ESA) to be prepared to further delineate the vertical and lateral extent of contamination and, for a soil risk management plan to be prepared to address discovery of previously unknown contamination. The Phase II ESA required by Mitigation Measure HAZ-2a would be conducted in substantial compliance with applicable guidance documents, including but not limited to the DTSC Advisory—Active Soil Gas Investigation and Final Guidance for Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Please refer to Master Response 8—Site Environmental Cleanup for clarifying revisions to Mitigation Measure HAZ-2a made in response to this comment.

Response to DTSC-4
The commenter recommends further investigation to determine whether groundwater is impacted by TPH, methane, and VOCs, and a multi-media risk assessment to be prepared if groundwater is impacted. Please see Master Response 8—Site Environmental Conditions. Mitigation Measure HAZ-2b requires additional groundwater sampling under the guidance of DTSC, and abatement measures to be implemented as required by DTSC. If further investigation necessitates a risk assessment to be conducted, the risk assessment would be prepared in substantial compliance with applicable guidance documents, including but not limited to the DTSC Preliminary Endangerment Assessment Guidance Manual, Section 2.5 and Human Health Risk Assessment (HHRA) Note 4. Please refer to Master Response 8—Site Environmental Cleanup for clarifying revisions to Mitigation Measure HAZ-2b made in response to this comment.

Response to DTSC-5
The commenter notes that California Human Health Screening Levels (CHHSLs) are no longer used by the DTSC.

CHHSLs were used in the Phase I ESA and the Phase II ESA prepared in 2009 and 2011, respectively. Since that time, DTSC stopped using CHHSLs as benchmarks for screening health risks. However, as discussed in Master Response 8—Site Environmental Conditions, a Phase II ESA will be required to be prepared for the project site by Mitigation Measures HAZ-2a and HAZ-2b. The Phase II ESA will use then-current DTSC recommended screening levels suggested by the commenter (DTSC HHRA
Note 3 or Regional Screening Levels established by the United States Environmental Protection Agency (EPA), and will not use CHHSLs. Please refer to Master Response 8—Site Environmental Cleanup for clarifying revisions to Mitigation Measure HAZ-2a made in response to this comment.

Response to DTSC-6
The commenter states that further investigation, risk assessment, and remediation should be overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup. Please see Master Response 8—Site Environmental Conditions. As requested by the commenter, oversight by DTSC, the City, and the Local Enforcement Agency (which is the County of Orange Environmental Health Division) is required by Mitigation Measures HAZ-2a and HAZ-2b.

Response to DTSC-7
The commenter states an opinion that a land use covenant and long-term indoor air and/or soil gas monitoring are required if the project cannot be remediated to achieve cleanup goals for unrestricted land use.

The vapor barriers recommended by the commenter are already provided for in Mitigation Measures HAZ-2a and HAZ-2b. In addition, structural controls are required by Mitigation Measure HAZ-2a for all occupied structures within a 1,000-foot radius of the landfill to limit gas accumulation (unless such controls are determined not to be necessary by the City in consultation with the Local Enforcement Agency). Pursuant to Mitigation Measure HAZ-2a, if the DTSC concludes that additional mitigation is needed after the structural controls are implemented, the applicant must work with the DTSC and the City to jointly develop additional mitigation measures that meet residential standards. Mitigation Measure HAZ-2a would require the project to be remediated to achieve residential standards and therefore the project does not require a land use covenant or long-term monitoring by DTSC.
November 30, 2018

Mr. Robert Garcia  
City of Orange  
Community Development Department  
300 E Chapman Avenue  
Orange, CA 92866

Subject: First Review of the Recirculated Draft Environmental Impact Report (SCH No. 2017031020) for The Trails at Santiago Creek Specific Plan and associated Development Agreement, General Plan Amendment, and Zone Change in Orange

Dear Mr. Garcia:

City of Irvine staff reviewed the Recirculated Draft Program Environmental Impact Report (EIR) for the subject project. The proposed project is a specific plan generally located at the northeast corner of N. Cannon Street and E. Santiago Canyon Road at 6118 East Santiago Canyon Road in the City of Orange on 109-acres as follows:

- A 40.2-acre Greenway/Santiago Creek open space environment in the northern portion of the site;
- A 20.3-acre Grasslands/Open Space element in the eastern portion of the site abutting the adjacent Reserve residential neighborhood;
- A 8.3-acre Managed Vegetation area along the north facing slopes of the Santiago Creek; and
- A single-family detached residential parcel of 128 units on 40.7-acres in the south-central and southwestern portion of the site accessed from Santiago Canyon Rd across from Nicky Way.

Based on the review of the Draft EIR, City of Irvine staff would like to provide the following comments:

1. It appears the volumes for the Existing With Project Traffic Conditions do not reflect the sum of existing and project volumes. You might want to consider reviewing the volumes on Figure 5-6A.

2. There is discussion throughout the traffic study that the project will provide third northbound through lane on Cannon between Serrano and Santiago Canyon. You
might want to clarify that the third northbound through lane on Cannon begins after Santiago Canyon and does not extend to Serrano.

Thank you for the opportunity to review and comment on the proposed project. Staff would appreciate the opportunity to review any further information regarding this project as the planning process proceeds. If you have any questions, I can be reached at 949-724-6395, or by email at mchao@cityofirvine.org.

Sincerely,

Melissa Chao
Senior Planner

cc: Kerwin Lau, Manager of Planning Services
Bill Jacobs, Principal Planner
Sun-Sun Murillo, Supervising Transportation Analyst
Local Agencies

City of Irvine (IRVINE)

Response to IRVINE-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to IRVINE-2
Comment noted. The traffic volumes reflected in Figure 5-6A is correct and they appropriately and accurately combine Figure 3-2 and Figure 5-2A.

Response to IRVINE-3
Comment noted. The clarification that the third northbound through lane on Cannon Street begins after East Santiago Canyon Road and does not extend through Serrano Avenue will be included in Section 4, Errata, of this Final EIR.

Response to IRVINE-4
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.
December 26, 2018

Mr. Robert Garcia, Senior Planner
Community Development Department/Planning Division
City of Orange
300 E. Chapman Avenue
Orange, CA 92866

SUBJECT: RECRECULATED DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE TRAILS AT SANTIAGO CREEK PROJECT

Mr. Garcia,

Thank you for affording the City of Villa Park the opportunity to review the Recirculated Draft Environmental Impact Report (RDEIR) for the Trails at Santiago Creek Project in the City of Orange. We have reviewed the RDEIR submit the attached comments for consideration.

We look forward to receiving your responses to these comments. Should you have any questions please contact Raynald F. Pascua, Planning Manager at (714) 998-1500.

Sincerely,

Steve Franks
City Manager

cc: Vince Rossini, Mayor
    Robbie Pitts, Mayor Pro Tem
    Robert Collacott, Councilmember
    Crystal Miles, Councilmember
    Chad Zimmerman, Councilmember
    Akram Hindiyeh, City Engineer
    Bill Tarin, City Building Official
    Raynald Pascua, City Planner
    Todd Litfin, City Attorney
### City of Villa Park Comments
#### The Trails at Santiago Creek RDEIR
December 26, 2018

<table>
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<tr>
<th>Issue</th>
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<tbody>
<tr>
<td>1. DEIR Comments</td>
<td><strong>Table 1-1:</strong> DEIR Comment Letters (p. 1-1) incorrectly states the signatory for the City of Villa Park DEIR comment letter. The letter was signed by Raynald F. Pascua, Planning Manager.</td>
</tr>
<tr>
<td>2. DEIR Comments</td>
<td><strong>Table 1-2:</strong> RDEIR Revision Summary Table, Public Agencies (p. 1-7) does not note any revisions to the DEIR in response to comments submitted by the City of Villa Park. The RDEIR should identify revisions that were made in response to Villa Park comments.</td>
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</table>
| 3. Project Description     | The Project Description (p. 2-2) states: "... the previously mined portions of the site were "backfilled," in which unsuitable materials were excavated and replaced with fill, pursuant to a grading permit issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material would be imported to the site during the process, including concrete, asphalt and rock that would be crushed on-site. Approximately 2,000 cubic yards of material was anticipated to be excavated from the site for reuse and would be blended with the crushed import material for a total of 225,000 cubic yards of backfill."

The Project Description (p. 2-62) further states: "The proposed project includes extensive remediation of bad soils conditions left as a byproduct of the former mining operation. This will necessitate the import of approximately 877,000 cubic yards of new clean materials and the export of approximately 500,000 cubic yards of silty soils. The blend of imported materials will be based on the recommendation of the project's soils engineer and will include asphalt, concrete, rock, and soil to be mixed in with the materials found on-site currently. These activities are expected to take place over an 18-month period."

On p. 2-65 the RDEIR lists the discretionary actions proposed as part of the Project and states “Subsequent ministerial actions would be required for the implementation of the proposed project, including issuance of grading and building permits.”

Appendix P – Traffic Impact Analysis (p. 5) states:

"In March 2011, the City issued Grading Permit #2047 related to the backfill operation. Table 17.32.020, Sand and Gravel District Use Regulations, of the Orange Municipal Code indicates that backfilling is a permitted use (P) in the S-G (Sand and Gravel) District. Additionally, in accordance with Section 3.1, Grading Permit Exceptions, of the City Grading Manuel backfilling is a permitted use. Grading is a ministerial (not discretionary) action as defined by the CEQA Guidelines and the City of Orange Local CEQA Guidelines (page 5–6).

The backfill operation will restore those portions of the Project site within the limits of activity to the elevations approved by Grading Permit #2047. Approved Grading Permit..."
City of Villa Park Comments on the Trails at Santiago Creek RDEIR
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<td>#2047 provides that 2,000 cubic yards of material will be cut in addition to the over evacuation. A total of 223,000 cubic yards of material will be imported to the site. The imported materials include concrete, asphalt, rock, and soil. The imported materials will be crushed on-site. A total of 225,000 cubic yards of material, both cut and fill, will be blended during this approved backfilling operation. In addition, grading permit(s) will be requested from the City to complete the backfilling of the previously mined portions of the Project site. This approved, on-going backfill operation currently is separate and distinct from the proposed Project. However, some of this grading would have to occur to construct the proposed Project. Therefore, as a practical result, from the date of Project approval the backfilling and grading will become Project site preparation activities.</td>
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It appears from these statements that the City of Orange considers some aspects of the grading and site preparation for the Project to be outside the scope of the RDEIR analysis because they were approved under a previous ministerial grading permit and, therefore, are not part of the proposed Project under CEQA. However, the analysis contained in the RDEIR does not clearly and consistently explain the City's assumptions on this issue. For example, the Air Quality analysis (p. 3.3-34) states "During grading, the project is expected to require the import of approximately 877,000 cubic yards of new material and the removal of approximately 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10 cubic yards per load. Based on this information, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period." The air quality analysis appears to evaluate emissions from 275,400 haul trips (p. 3.3-37 and 3.3-38), but the Transportation and Traffic chapter (Section 3.16) includes no analysis whatsoever of construction haul trips.

The RDEIR should clearly explain what aspects of Project construction the City considers to be exempt from the current CEQA analysis and what aspects are within the scope of this RDEIR.

4. Project Description | The discussion of the existing circulation system (p. 2-55) notes "Regional access to the site is provided via the SR-55 Freeway, SR-91 Freeway, and the SR-241/SR-261 Freeways (Toll Roads). The principal local network of streets serving the proposed project includes East Santiago Canyon Road and Cannon Street." As noted in our 4/4/2018 DEIR comment letter, East Santiago Canyon Road becomes Villa Park Road west of Hewes Street, and regional access to the project site from the SR-55 freeway is through the City of Villa Park on Villa Park Road. Properties immediately adjacent to Villa Park Road are predominantly single-family residences, and Villa Park Elementary School is approximately 200 feet from this roadway. The RDEIR Project Description should be revised to acknowledge that these sensitive land
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<tr>
<td>5. Project Description</td>
<td>The RDEIR states (p. 2-62) that the proposed project would “…necessitate the import of approximately 877,000 cubic yards of new clean materials and the export of approximately 500,000 cubic yards of silty soils.” However, there is no analysis of the haul routes or truck volumes associated with this import/export and resulting impacts on the City of Villa Park. Due to the extraordinary magnitude of heavy truck trips associated with the Project, the RDEIR should be revised to specifically identify haul routes, the location of import and export material sites, and the number of truck trips and duration on haul routes. It is specifically requested that a mitigation measure/condition of approval be added to prohibit heavy truck traffic to/from the Project site through the City of Villa Park during the construction phase of the Project.</td>
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<tr>
<td>6. Construction Period</td>
<td>The RDEIR includes differing statements regarding the Project construction period. For example, in the Project Description (p. 2-64) the construction period is stated to be 24 months. However, the Air Quality section (p. 3.3-23 &amp; 3.3-34) states the construction period is assumed to be 4-1/2 years (1-1/2 years for grading) and the Noise section (p. 3.12-20) states that the construction period is assumed to be 12 months. These analyses should be revised to reconcile these conflicting statements in the RDEIR.</td>
</tr>
<tr>
<td>7. Air Quality</td>
<td>The RDEIR describes the air quality local regulatory setting for the City of Orange but does not describe the existing regulatory setting related to air quality in the City of Villa Park (p. 3.3-20). Given that Villa Park Road through the City of Villa Park is identified as one of the primary regional access routes to the Project site (p. 2-55), this is relevant information that should be included in the RDEIR.</td>
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<td>8. Air Quality</td>
<td>The RDEIR analysis of air quality impacts on sensitive receptors during construction (beginning on p. 3.3-40) does not address impacts to sensitive uses along Villa Park Road in the City of Villa park caused by heavy truck trips (estimated to carry 50% of the estimated 275,000 haul trips). Instead, the analysis is limited to estimated emissions resulting from 4 acres of disturbed area on-site during construction and concludes that impacts would be less than significant (Table 3.3-14). As the RDEIR notes (p. 3.3-16) California <em>Health and Safety Code</em> Section 42301.6 to 42301.9 addresses sources of hazardous air pollutants near schools. It requires new or modified sources of hazardous air emissions located within 1,000 feet from the outer boundary of a school to give public notice to the parents or guardians of children enrolled in any school located within one-quarter mile of the source and to each address within a 1,000-foot radius. Villa Park Elementary School is approximately 200 feet south of Villa Park Road. The RDEIR should specifically analyze potential impacts of hazardous air pollutants on Villa Park Elementary School caused by heavy truck sedations.</td>
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City of Villa Park Comments on the Trails at Santiago Creek RDEIR  
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<td>trips during construction and the Project should be conditioned to provide notice as required by state law.</td>
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<td>9. Hazardous Materials</td>
<td>Mitigation Measure HAZ-2b (p. 3.8-13) states that &quot;All contaminated soils shall then be excavated and disposed of off-site...&quot; The RDEIR should identify haul routes that would be used in the off-site disposal of hazardous materials and analyze potential health and safety impacts to properties and residents in Villa Park if those haul routes would pass through Villa Park.</td>
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<tr>
<td>10. Hazardous Materials</td>
<td>Villa Park Elementary School is located approximately 200 feet from Villa Park Road. The analysis of Impact HAZ-3 (Exposure of Schools to Hazardous Materials on p. 3.8-14) does not evaluate impacts to Villa Park Elementary School that could result from hauling and off-site disposal of hazardous materials as noted in Mitigation Measure HAZ-2b.</td>
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<td>11. Hazardous Materials</td>
<td>Homes within the City of Villa Park are located within one-quarter mile of the Project site. The Phase II ESA indicated that elevated levels of methane had the potential to occur in project site soils (p. 3.8-15). The RDEIR does not adequately analyze potential methane concentration levels and health impacts to Villa Park residents that could be caused by the release of methane and other toxic substances during Project-related soil disturbance and construction.</td>
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<tr>
<td>12. Wildland Fire Hazards</td>
<td>The analysis of wildland fire hazards (Impact HAZ-6 on p. 3.8-16) states &quot;The Orange Fire Department noted that the project site is located at the wildland/urban interface...&quot; and concludes that impacts would be reduced to a less than significant level through the preparation of a Fuel Modification Plan (Mitigation Measure HAZ-6). However, recent catastrophic wildfires in California have shown that homes and other structures exacerbate wildland fires by providing additional fuel and also make fire suppression more difficult and costly. The RDEIR does not evaluate how the additional structures proposed in the Project would cause increased risk to Villa Park residents, which are within one-quarter mile of the Project site.</td>
</tr>
<tr>
<td>13. Flood Hazards</td>
<td>Exhibit 3.9-4 (100-Year Flood Hazard Areas, p. 3.9-13) incorrectly identifies &quot;Zone AE&quot; as being &quot;Within 0.1% chance annual Flood.&quot; The 100-year flood zone represents a 1% chance of annual flood, not 0.1% (<a href="https://www.fema.gov/flood-zones">https://www.fema.gov/flood-zones</a>). In addition, it is generally accepted that the effects of climate change will result in more intense storms and increased risk of flooding in the future. Santiago Creek passes through the City of Villa Park approximately one-quarter mile west of the Project site. The RDEIR does not adequately analyze how the proposed development could exacerbate flood risk to properties located adjacent to Santiago Creek downstream in Villa Park, particularly with the effects of climate change.</td>
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<td>14. Santiago Creek Greenbelt Plan</td>
<td>The Project Description includes the statement: &quot;The uses within the open space planning areas will be compatible with and reflective of uses as described in the Santiago Creek Vision Plan (2018), Santa Ana River, Santiago Creek Greenbelt Plan&quot;</td>
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City of Villa Park Comments on the Trails at Santiago Creek RDEIR  
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<td>(1971), and the Santa Ana River/Santiago Creek Greenbelt Implementation Plan (1976).&quot; (p. 2-50) The Santiago Creek Greenbelt Plan was adopted by the City of Orange, City of Villa Park and the County of Orange. The analysis in Chapter 3.10 – Land Use does not address the Project’s consistency with the Santiago Creek Greenbelt Plan except for a brief mention in Table 3.10-3 on p. 3.10-24. The RDEIR should be revised to include a description of the Greenbelt Plan as it pertains to the Project and an analysis of the Project’s consistency with the Greenbelt Plan.</td>
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<td>15. SMARA Reclamation Plan</td>
<td>The Introduction (p. 1-6) states that “Section 3-11: Mineral Resources has been revised to include background information on the Surface Mining and Reclamation Act of 1975’s non-applicability to the project site.” However, it appears that the only relevant information provided in the RDEIR is the following statement: “Under SMARA, operators of surface mining operations are required to obtain a permit for operations post-1976, and are required to file a mining reclamation plan for post-1975 mining operations. As such, a mining reclamation plan under SMARA is not required for the project site.” (p. 3.11-3) Given that the City of Orange has issued permits after 1976 for mining operations on the project site (e.g., Grading Permit No. 2047 issued in 2011 referenced on p. 2-2), the conclusory statement in the RDEIR that a mining reclamation plan is not required is not supported by facts and analysis.</td>
</tr>
<tr>
<td>16. Fire Protection</td>
<td>The RDEIR includes contradictory statements regarding fire protection. On p. 3.14-1 it is stated that OCFA Station 23 is 0.64 miles from the Project site, but on p. 3.14-7 it is stated that City of Orange Fire Station No. 8, which is a distance of 1.75 miles from the site, is the closest fire station to the Project site. The RDEIR should be revised to resolve this inconsistency.</td>
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<tr>
<td>17. Traffic</td>
<td>The City of Villa Park’s previous comments on the DEIR requested the expansion of the TIA study area to include Villa Park Road/Katella Avenue west to the 55 freeway; however, the RDEIR traffic study still does not include roadways or intersections in the City of Villa Park. (p. 3.16-1) It is specifically requested that the RDEIR be revised to expand the TIA study area to include roadways and intersections in or immediately adjacent to Villa Park.</td>
</tr>
<tr>
<td>18. Traffic</td>
<td>Table 3.16-1: Study Facilities Summary (p. 3.16-2) states that Villa Park Road west of Hewes is within City of Orange jurisdiction; however, at Lemon Street (less than (\frac{1}{2}) mile west of Hewes) Villa Park Road crosses into the City of Villa Park. The EIR does not acknowledge City of Villa Park jurisdiction nor analyze traffic impacts within Villa Park. The RDEIR should be revised to include this fact and address impacts within Villa Park.</td>
</tr>
<tr>
<td>19. Traffic</td>
<td>Level of Service (LOS) criteria in the City of Villa Park is not addressed. (p. 3.16-13 and 3.16-17) The RDEIR should be revised to include City of Villa Park traffic policies and standards.</td>
</tr>
<tr>
<td>20. Traffic</td>
<td>The RDEIR notes that the proposed project would add a substantial amount of peak hour traffic on Villa Park Road. Exhibit 3.16-7A: PM Peak Hour Project Traffic Volumes</td>
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| **(Without Sand & Gravel Credit) (p. 3.16-31)** shows 280 trips on Villa Park Road west of Hewes and **Exhibit 3.16-7B: PM Peak Hour Project Traffic Volumes (With Sand & Gravel Credit) (p. 3.16-33)** shows 123 trips on Villa Park Road west of Hewes.  
**Table 3.16-19: Year 2022 Roadway Segment Level of Service Summary (With Sand and Gravel Credit) (p. 3.16-102)** shows that conditions on Villa Park Road west of Hewes would deteriorate from LOS C without the Project to LOS F with the Project, but this is not addressed in the analysis narrative (p. 3.16-96) or the proposed mitigation measures (p. 3.16-104).  
**Table 3.16-23: Year 2040 Buildout Roadway Segment Level of Service Summary (Without Sand and Gravel Credit) (p. 3.16-116)** shows that conditions on Villa Park Road west of Hewes would deteriorate from LOS E without the Project to LOS F with the Project at 2040 buildout, but this is not addressed in the narrative or mitigation measures.  
**Table 3.16-24: Year 2040 Buildout Roadway Segment Level of Service Summary (With Sand and Gravel Credit) (p. 3.16-118)** shows that conditions on Villa Park Road west of Hewes would be substandard (LOS E) both with and without the Project at 2040 buildout, but this is not addressed in the narrative or mitigation measures.  
The RDEIR does not address the City of Villa Park request in our 4/4/2018 DEIR comment that the traffic analysis include the Villa Park street network east of SR-55, and that the analysis and mitigation measures be based upon LOS C consistent with the Villa Park General Plan. The RDEIR should be revised to directly analyze traffic impacts and identify appropriate mitigation measures within Villa Park. |
| **21. Traffic** | The RDEIR states (p. 3.16-120) “East Santiago Canyon Road is a facility that is identified in the Orange County Congestion Management Program.” However, according to the **2017 Orange County Congestion Management Program (Figure 2: 2017 Congestion Management Program Highway System) East Santiago Canyon Road is not identified as part of the CMP system.** (http://www.occta.net/pdf/2017%20Final%20CMP.pdf) |
| **22. Traffic** | The entire Chapter 3.16 – Transportation and Traffic makes no mention whatsoever of construction traffic or truck traffic associated with the import and export of materials to and from the site, which the RDEIR estimates to be a total of 1.377 million cubic yards. (p. 2-62) The RDEIR (p. 3.3-34) estimates that this would generate approximately 275,400 truck trips over a 1-1/2-year period.  
The RDEIR Air Quality analysis (p. 3.3-26) assumes that 50% of construction traffic will access the Project site to/from the west on East Santiago Canyon Road (i.e., through the City of Villa Park). |
City of Villa Park Comments on the Trails at Santiago Creek RDEIR  
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<td>CEQA Guidelines Sec. 15126 (Consideration and Discussion of Environmental Impacts) states &quot;All phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation.&quot;</td>
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<td>The RDEIR fails to address the fundamental CEQA requirement to evaluate project traffic impacts during construction. If haul routes and other construction traffic would utilize Villa Park Road (as assumed in the RDEIR) significant adverse impacts on the City of Villa Park could occur that must be evaluated and mitigated in the RDEIR.</td>
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City of Villa Park (VILLA PARK)

Response to VILLA PARK-1
Comment noted. This correction is included in Section 4, Errata, of this Final EIR.

Response to VILLA PARK-2
Consistent with CEQA Guidelines Section 15088.5(f)(1), as noted in RDEIR Section 1, Introduction, page 1-6, Table 1-2, RDEIR Revision Summary Table Public Agencies, provides a representative list of sections revised stemming from specific comments received, compiled to not be repetitive in the types of comments, and do not include minor text revisions throughout the document.

Response to VILLA PARK-3
Please refer to Master Response 9—Soil Import/Export Numbers.

Response to VILLA PARK-4
Comment noted. This clarification text will be included in Section 4, Errata, of this Final EIR.

Response to VILLA PARK-5
Please refer to Master Response 9—Soil Import/Export Numbers.

Response to VILLA PARK-6
The potential project construction schedule/period is consistently referred to as 1.5 years to 4.5 years in the RDEIR; however, out of an abundance of caution and for purposes of providing the most conservative analysis, a shortened time frame is used in certain instances.

As stated in RDEIR Section 3.12, Noise, the following reference is made on page 3.12-20 as to the construction schedule of the project: “Implementation of the proposed project will be primarily dictated by economic conditions and may occur on a phased basis over a period of years. However, for the purposes of providing a conservative, reasonable worst-case analysis in this EIR, it will be assumed that the entire project would be developed in a single phase that takes 12 months to complete.” This explicitly states that the project could be phased over a period of years, which is consistent with other statements in the RDEIR that refer to a potential construction schedule of 1.5 years to 4.5 years. As the statement indicates, a 12-month schedule was analyzed to provide a conservative, reasonable worst-case analysis, as this shortened time frame would require the highest number of pieces of construction equipment operating simultaneously on the project site. This scenario would provide the reasonable worst-case loudest construction noise period. The noise analysis does not make any indication that this is the anticipated construction schedule for the project.

As stated in RDEIR Section 2, Project Description, the “implementation of the proposed project will be primarily dictated by economic conditions and may occur on a phased basis over a period of years.” This explicitly states that the project could be phased over a period of years, which is consistent with other statements in the RDEIR that refer to a potential construction schedule of 1 year to 4.5 years. The varying schedules represent scenarios for construction equipment that could reasonably represent the worst-case scenarios for the various technical areas. For the noise analysis, a 12-month schedule was analyzed to provide a conservative, reasonable worst-case analysis, as this shortened time frame would require the highest number of pieces of construction equipment operating simultaneously on the project site. The air quality analysis found significant impacts for
both regional construction emissions and health risks during construction activities, resulting in mitigation of fugitive dust emissions and on-site construction equipment. Minor variations in the construction schedule during implementation of the project would not result in changes to the findings in the RDEIR.

Response to VILLA PARK-7

In RDEIR Section 3.3, Air Quality; subsection 3.3.2, Regulatory Framework, the regulatory setting for the federal, State, and local entities is discussed. The regulatory setting for South Coast Air Quality Management District (SCAQMD) describes air quality regulations that are applicable to the region. Since the City of Orange is the lead agency for the proposed project, additional regulatory information is included at the local level. Additional details for surrounding jurisdictions are not required, as those specific policies and zoning regulations would not be applicable to the project site.

Section 3.3, Air Quality, describes the regional analysis related to Air Quality (AQ) and greenhouse gas (GHG) impacts that account for emissions to the City of Orange, nearby jurisdictions, and throughout the air basin. Section 3.3 also includes a localized analysis for air quality impacts to the nearby sensitive receptors located within 1,000 feet. This represents the zone of greatest impact from project emissions.

In addition, Section 3.3, Air Quality, analyzed the impacts from carbon monoxide (CO) hot spots at the intersection between Villa Park Road, East Santiago Canyon Road, and Cannon Street. The peak-hour traffic volume at this intersection is less than 10,000, provided by the traffic study, and would result in less than significant impacts. Therefore, the most conservative analysis is represented by the localized air quality emissions, CO hot spot, and health risk assessment within the City of Orange.

Response to VILLA PARK-8

The commenter does not provide a complete summary of the analysis presented in the RDEIR. The analysis in Impact AIR-4 includes an evaluation of localized emissions, CO hotspots, and health risks. The localized significance threshold (LST) analysis uses a 4-acre disturbed area on-site during construction based on the SCAQMD's “Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.” The fact sheet determines the maximum number of acres disturbed per day based on the estimated equipment usage. Therefore, although the entire project site is greater than 50 acres, the maximum daily disturbed area is 4 acres.

As discussed in Response to Comment VILLA PARK-7, the DEIR analyzed the impacts from CO hot spots at the intersection between Villa Park Road, East Santiago Canyon Road, and Cannon Street. The peak-hour traffic volume at this intersection is less than 10,000, provided by the traffic study, and would result in less than significant impacts.

The health risk assessment (HRA) discussed in Impact AIR-4 provides an evaluation of emission concentrations and associated risks for sensitive receptors located within 1,000 feet of the project site. The modeling used in the HRA includes emissions from both on-site construction equipment and off-site, on-road vehicles. Receptors located in the City of Villa Park are more than 1,000 feet away from the site and were not included in the analysis. Based on the combined emissions from
both the on-site and off-site sources, the analysis in the DEIR represented a conservative evaluation of impacts.

The commenter also references Health and Safety Code Section 42301.6(a) regarding notice of hazardous air emissions. Again, receptors within 1,000 feet of the project site were evaluated for health risks. Health and Safety Code Section 42301.6(a) notification requirements apply to permits requested from the SCAQMD, and the SCAQMD would provide that notification for the proposed project if necessary. As stated in Health and Safety Code Section 42301.6(a), “Prior to approving an application for a permit to construct or modify a source which emits hazardous air emissions, which source is located within 1,000 feet from the outer boundary of a school site, the air pollution control officer shall prepare a public notice in which the proposed project or modification for which the application for a permit is made is fully described.”

Response to VILLA PARK-9
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-11, “Removal and disposal of hazardous materials from the project site would be conducted by a permitted and licensed contractor. Any handling, transporting, use, or disposal would comply with applicable laws, policies, and programs set forth by various federal, state, and local agencies and regulations, including the EPA, RCRA, Caltrans, and the local Hazardous Materials Program. Required compliance with applicable hazardous material laws and regulations would ensure that construction-related hazardous material use would not result in significant impacts.”

Response to VILLA PARK-10
Villa Park Elementary School is located approximately 1.29 miles west of the project site. As noted in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-11, “Any handling, transporting, use, or disposal would comply with applicable laws, policies, and programs set forth by various federal, state, and local agencies and regulations, including the EPA, RCRA, Caltrans, and the local Hazardous Materials Program. Required compliance with applicable hazardous material laws and regulations would ensure that construction-related hazardous material use would not result in significant impacts.”

Response to VILLA PARK-11
Please see Master Response 8—Site Environmental Conditions.

Response to VILLA PARK-12
Please see Master Response 5—Wildfire Risk

Response to VILLA PARK-13
Comment noted. This is a typographical error. Exhibit 3.9-4, 100-Year Flood Hazard Areas, in RDEIR Section 3.9, Hydrology and Water Quality, incorrectly identifies “Zone AE” as being 0.1 percent. It should be either a percentage value of 1 percent or a ratio value of 0.01. This correction will be included in Section 4, Errata, of this Final EIR.

RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-24, Table 3.9-6, Existing and Proposed Discharge Rates—Proposed Storm Drainage System, illustrates the differences between the existing runoff rates and the proposed runoff rates for both the 2-year event and the 100-year event. The 2-year event is used for low flow water quality evaluation, impact assessment, and mitigation. The
100-year event is used for peak flow drainage protection evaluation, impact assessment, and mitigation. This comment applies to the 100-year peak flow event. For the 100-year event, 180.05 cubic feet per second (cfs) is the runoff rate for the existing condition and 82.72 cfs is the runoff rate for the proposed condition. As the table indicates, this is a reduction of 97.33 cfs from the existing condition to the proposed condition, and reflects a reduction of 54.1 percent from the existing condition to the proposed condition. This reduction from the existing condition to the proposed condition mitigates flood risk to properties located adjacent to Santiago Creek downstream in Villa Park. It does not exacerbate the flood risk to properties located adjacent to Santiago Creek downstream in Villa Park as stated by the City.

Response to VILLA PARK-14
Please refer to Master Response 1—Plan Consistency.

Response to VILLA PARK-15
Please see Master Response 7—Applicability of SMARA.

Response to VILLA PARK-16
The closest fire station to the project site is Orange Fire Station No. 8, located approximately 1.75 miles north of the project site at 5725 Carver Lane; there is also an Orange County Fire Authority Fire Station No. 23, approximately 0.64 mile east of the project site at 5020 Santiago Canyon Road, Villa Park, CA 92869. This clarification will be included in Section 4, Errata, of this Final EIR.

Response to VILLA PARK-17
Comment noted. Based on the City of Orange TIA Guidelines (50 peak-hour trips) and County of Orange Congestion Management Plan (CMP) criteria (3 percent average daily traffic [ADT] increase), Villa Park Road was not required to be analyzed. In fact, while not required, the intersection of Villa Park Road at Hewes Street and the roadway segment of Villa Park Road west of Hewes Street were analyzed to be conservative and no significant impacts were identified.

Response to VILLA PARK-18
Comment noted. Based on the City of Orange TIA Guidelines (50 peak-hour trips) and County of Orange CMP criteria (3 percent ADT increase), Villa Park Road was not required to be analyzed. While not required, the intersection of Villa Park Road at Hewes Street and the roadway segment of Villa Park Road west of Hewes Street were analyzed to be conservative and no significant impacts were identified.

Response to VILLA PARK-19
Comment noted. Because no facilities were required or justified to be analyzed within the City of Villa Park, the LOS criteria for Villa Park does not need to be included in the TIA.

Response to VILLA PARK-20
a) Comment noted. We acknowledge that the traffic volumes in Exhibit 3.16-7A are accurate, but the term “substantial” does not imply significant.

b) Comment noted. The LOS F indication for “with Project” is an error. The correct value is LOS C (0.724) as reflected in Table 9-2B of the Approved TIA (Linscott, Law & Greenspan [LLG] September 13, 2018)
c) Comment noted. We acknowledge the LOS values but the increase in LOS is less than the 1 percent (0.010) increase impact criteria and therefore not significant.

d) Comment noted. We acknowledge the LOS values but the increase in LOS is less than the 1 percent (0.010) increase impact criteria and therefore not significant.

e) Comment noted. Based on the City of Orange TIA Guidelines (50 peak-hour trips) and County of Orange CMP criteria (3 percent ADT increase), Villa Park Road was not required to be analyzed. However, while not required, the intersection of Villa Park Road at Hewes Street and the roadway segment of Villa Park Road west of Hewes Street were analyzed to be conservative and no significant impacts were identified.

Response to VILLA PARK-21
East Santiago Canyon Road is not identified as part of the 2017 Orange County Congestion Management Program. This correction will be included in Section 4, Errata, of this Final EIR.

Response to VILLA PARK-22
Please refer to Master Response 9—Soil Import/Export Numbers.
November 20, 2018
Robert Garcia, Senior Planner
City of Orange
Community Development Department
300 East Chapman Avenue
Orange, CA 92866

Re: Notice of Availability – RDEIR for The Trails at Santiago Creek Project

Dear Mr. Garcia:

Irvine Ranch Water District (IRWD) has received and reviewed the Recirculated Draft Environmental Impact Report (RDEIR) for the Trails at Santiago Creek Project. IRWD offers the following comments.

IRWD wishes to again reiterate the comment provided in its June 12, 2013, March 31, 2017, and April 5, 2018 comment letters. While this project is not specifically within IRWD jurisdiction, a portion of this project is within the former Carpenter Irrigation District area which was annexed by IRWD. As the successor water district to Carpenter Irrigation District, a thorough review of any IRWD rights over the Rio Santiago/Trails at Santiago Creek Project area should be conducted by the project proponent before a final map is processed. The appropriate actions as to the disposition of any IRWD rights should be coordinated through IRWD’s Planning and Technical Services Division. Please contact IRWD’s Right-Of-Way Agent, Ray Thatcher, at (949) 453-5602 to address this issue. Additionally, prior to development plan submittal and approval, the developer shall coordinate with IRWD’s Planning and Technical Services Division to develop a technical memorandum or Sub-Area Master Plan Addendum for this project. Please contact Eric Akiyoshi, Principal Engineer at (949) 453-5552 to further discuss this requirement.

IRWD appreciates the opportunity to review and comment on the DEIR. If you have any questions or require additional information, please contact the undersigned or Jo Ann Corey, Environmental Compliance Specialist at (949) 453-5326.

Sincerely,

[Signature]
Fiona M. Sanchez
Director of Water Resources

Cc: Eric Akiyoshi, IRWD
Ray Thatcher, IRWD
Jo Ann Corey, IRWD
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Irvine Water District (IRWD)

Response to IRWD-1

Comment noted. As requested, the developer shall coordinate with IRWD’s Planning and Technical Services Division to develop a technical memorandum or Sub-Area Master Plan Addendum for this project. This will be included as a Condition of Approval.
December 27, 2018

VIA EMAIL AND USPS

Mr. Robert Garcia
Senior Planner
City of Orange, Community Development Department,
Planning Division
300 E. Chapman Avenue
Orange, CA 92866
rgarcia@cityoforange.org

Dear Mr. Garcia:

Notice of Preparation of a Draft
Environmental Impact Report for the Trails at Santiago Creek Project

The Metropolitan Water District of Southern California (Metropolitan) has reviewed the Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the proposed Trails at Santiago Creek Project (Project). The City of Orange is acting as the Lead Agency under the California Quality Environmental Act (CEQA). The proposed project would establish a specific plan consisting of: a 40.2-acre Greenway/Santiago Creek open space environment in the north portion of the site and a 28.3-acre Grasslands/Open Space element in the eastern portion of the site abutting the adjacent Reserve residential neighborhood, including a managed vegetation area along the north facing slopes of Santiago Creek. A 40.7-acre Single-Family Detached Residential parcel, consisting of 128 units, is proposed in the south-central and southwestern portion of the site abutting the adjacent County-owned vacant parcel west of the project site. The proposed project would also include remediation of soil conditions, including the import of approximately 700,000 cubic yards of new material and export of approximately 400,000 cubic yards of silty soils.

Our review of the Notice indicates that Metropolitan owns and operates the Allen McCullough Pipeline (AMP) and facilities near the proposed project location. The enclosed map shows these facilities in relation to the proposed Project. Metropolitan is concerned with potential impacts to the AMP and associated facilities that may result from the construction and implementation of the proposed Project. We request that the City of Orange evaluate impacts of the proposed Project to Metropolitan’s existing facilities that occur within the project’s boundaries. The Project must not impact Metropolitan’s ability to access, operate and maintain existing facilities.
In order to avoid potential conflicts with Metropolitan’s rights-of-way, we require that any
design plans for any activity in the area of Metropolitan’s pipelines or facilities by submitted for
review and written approval. Detailed prints of drawings of Metropolitan’s pipelines and rights-
of-way may be obtained by calling Metropolitan’s Substructures Information Line at
(213) 217-7663. To assist in preparing plans that are compatible with Metropolitan's facilities,
easements, and properties, we have enclosed a copy of the “Guidelines for Developments in the
Area of Facilities, Fee Properties, and/or easements of The Metropolitan Water District of
Southern California.” Please note that all submitted designs or plans must clearly identify
Metropolitan's facilities and rights-of-way.

We appreciate the opportunity to provide input to your planning process and we look forward to
further coordination on this Project. If you have any questions, please contact Mr. Sean Carlson
at (213) 217-6276.

Very truly yours,

Sean Carlson
Team Manager, Environmental Planning Section

SAC:sac
SharePoint\NOP of DEIR for Trails at Santiago Creek Project_Comment Letter

Attachments:

(1) Guidelines for Improvements and Construction Projects Proposed in the Area of
Metropolitan’s Facilities and Rights-of-Way
(2) Project Map
**Metropolitan Water District (MWD)**

*Response to MWD-1*
Comment noted. The comment consists of introductory remarks that do not raise any questions about the environmental analysis.

*Response to MWD-2*
Comment noted. The Allen McCulloch Pipeline was evaluated in Appendix K, Hydrology and Water Quality Reports, of the RDEIR (see the Preliminary Water Quality Management Plan dated March 6, 2017; and the Preliminary Hydrology and Hydraulic Report dated March 7, 2017). The RDEIR also discusses the Metropolitan Water District (MWD) facilities (RDEIR Section 2, Project Description, page 2-2; and RDEIR Section 3.10, Land Use and Planning, page 3.10-2). The project would not impact MWD’s ability to access, operate, and/or maintain existing facilities.

In order to avoid potential conflicts with MWD’s rights-of-way, the Applicant will follow established requirements, including the submittal of design plans for any activity in the area of MWD’s pipelines or facilities for review and approval. This will be included as a condition of approval.

The Applicant shall submit design plans for any activity in the area of MWD’s pipelines or facilities for review and written approval. This will be included as a condition of approval. In 2013, Fuscoe Engineering, Inc. had made such a submittal for the former Rio Santiago Project. This application had been processed and approved by MWD in 2014. The MWD Substructure Department job number is 4057-98-007d. A copy of the MWD approval letter is attached herein and labeled 4057-98-007d.pdf. Fuscoe Engineering, Inc. is prepared to make, submit, and process a replacement application to the MWD for the new Trails at Santiago Creek Project.

*Response to MWD-3*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental analysis.

*Response to MWD-4*
The attachments do not raise any environmental comments that require a response, therefore, they are not reproduced in this Responses to Written Comments section, but they are included in the record of proceedings and administrative record.
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December 31, 2018

Robert Garcia, Senior Planner
City of Orange, Community Development Department
300 E. Chapman Avenue
Orange, CA 92866

Subject: Recirculated Draft Environmental Impact Report - The Trails at Santiago Creek Project

Dear Mr. Robert Garcia:

Thank you for the opportunity to comment on the Recirculated Draft Environmental Impact Report for the Trails at Santiago Creek. The County of Orange offers the following comments for your consideration.

**OC Infrastructure Programs/Traffic Engineering**

1. Project recommended signal modifications and lane configuration improvements for Orange Park Blvd at Santiago Canyon Rd (project impacted intersection #5) shall be coordinated with the County. The County will subsequently participate in the review and approval process of the mitigation design.

**OC Parks**

1. Project Description, page 2-50 (Trails, Open Space, and Recreation): According to the Santiago Creek Greenway Alliance, open space grasslands and trails should be cared for and maintained by OC Parks as part of the regional park system, in order to ensure that the habitat will be properly managed for public benefit (Appendix E). No such commitment has been made by OC Parks for long-term stewardship of the open space grasslands and trails as part of this proposed project. In the event that OC Parks will not provide management and maintenance for the open space grasslands and trails, the responsibility would be with the Homeowners Association as part of the proposed project.

Responsibility for open space grasslands and trails management and maintenance will be discussed as part of the ongoing process.

**OC Parks recommends that the City, prior to granting project entitlements including a zone change/General Plan Amendment and Specific Plan approval, requires the developer to execute a pre-development Memorandum of Understanding with the County or other intended owner of open space, grasslands, trails, creeks, and/or other recreational amenities that addresses design requirements & standards, long-term maintenance, habitat protection, and**
establishment of an endowment or other funding mechanism for the management and maintenance of such facilities in perpetuity.

2. Recreation, page 3.15-2 (Trails): As mentioned in the Santiago Creek Greenway Alliance letter, the proposed Greenway, Open Space, and Trail plan (Exhibit 4.14) lacks a connection to the Santiago Creek Bike Trail which currently ends on the west side of Cannon Street. OC Parks supports a connection to the Santiago Creek Bike Trail as a means of improving regional trail connectivity in the area.

3. Transportation and Traffic, page 3.16-123 (Bicycles and Pedestrians): Exhibit 4.14 depicts Trail "C" continuing in an easterly direction, ostensibly linking to Santiago Oaks Regional Park; however, it is not clear how or where this connection occurs. Please provide additional information as to how the proposed trails would connect to existing trails. A more regional trail linkage exhibit would be useful in understanding how this occurs. Any proposed trails that in the future may be offered to the County of Orange/OC Parks for ownership, maintenance, or stewardship should be designed and constructed in accordance with OC Parks standards.

4. Utilities and Service Systems, page 3.18-11 (Storm Drainage): Two sub drainage areas will flow directly to Santiago Creek without detention. One of these areas is approximately 1.46 acres directly over the Handy Creek Channel. This flow will be directed to the Handy Creek Channel. The other area is the trail system adjacent to Santiago Creek and totals 6.20 acres. This flow will be picked up via a storm drain system, which will outlet at the same location as the detention basin outlet. The outlet structure from the detention basin to Santiago Creek will be protected by riprap and an energy dissipater.

OC Public Works/OC Flood will require review and comment on the adequacy/inadequacy of existing facilities to accept stormwater and urban runoff flows to Santiago Creek. Additional information may be required as to projected volumes, adequacy of existing facilities to accept such conveyance, proposed improvements, etc.

5. What are the anticipated impacts to sensitive natural communities and/or wetland habitats as a result of the proposed development and trail installation?

6. Are the proposed PA-A and PA-B, the Greenway Open Space and Grasslands Open Space, respectively, intended to be restored to native habitat? If so, what habitat type(s) will PA-A consist of? If PA-B is intended to be native, how will this be installed and sustainably maintained as native grassland? Who will be improving and maintaining these areas? Will they be installed as mitigation?

7. In Exhibit 2-11, Trail E(s) appears to go outside of the developer parcel. What is this trail connecting to?

8. 3.4-57 states: "The proposed project will provide a 150-foot limited use (landscaping and fuel modification) time sensitive...setback area adjacent to the southern cottonwood-willow riparian forest within Santiago Creek,..." Why is
landscaping/fuel mod proposed along the riparian corridor rather than adjacent to the wildland-urban interface?

If you have any questions regarding these comments, please contact either Jamie Reyes in OC Infrastructure Programs/Traffic Engineering at (714) 647-3903, Eric Hull in OC Parks/Entitlement at (949) 585-6446, Jennifer Naegele in OC Parks/Natural Resources at (949) 923-3742 or Cindy Salazar at (714) 667-8870 in OC Development Services.

Sincerely,

Joanna Chang

for
Richard Vuong, Manager, Planning Division
OC Public Works Service Area/OC Development Services
300 North Flower Street
Santa Ana, California 92702-4048
Richard.Vuong@ocpw.ocgov.com

cc: Joanna Chang, OC Development Services
    Jamie Reyes, OC Flood Programs/Traffic Engineering
    Eric Hull, OC Parks
    Jennifer Naegele, OC Parks
    Nicole Walsh, Supervising Deputy County Counsel
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Orange County Public Works (OCPW)

Response to OCPW-1
Comment noted. The comment consists of introductory remarks that do not raise any questions about the environmental analysis.

Response to OCPW-2
Comment noted. The City shall coordinate with the County in the review and approval process of the mitigation design for the intersection of Orange Park Boulevard at East Santiago Canyon Road. This will be included as a condition of approval.

Response to OCPW-3
This comment recommends that prior to project entitlements, the developer execute a pre-development Memorandum of Understanding (MOU) with the County or other intended owner of open space, grasslands, trails, creeks, and/or other recreational amenities that addresses design requirement and standards, long-term maintenance, habitat protection, and establishment of an endowment or other funding mechanism for the management of such facilities in perpetuity.

This comment is noted. Please see Master Response Master Response 6—Stewardship of Open Space. Furthermore, in response to the County’s request for an MOU, the City will include the execution of a pre-development MOU with the County as a condition of approval, prior to the approval of a tentative tract map, if the open space is truly dedicated to the County.

Response to OCPW-4
Along the north side of East Santiago Canyon Road, in addition to the existing Class II bike lane, an off-street recreational trail will extend along the entire length of the project site. The project Applicant proposes on-site trails with points of connection at the project boundary with the intent that off-site extensions and connectivity to other trail systems will be by other entities or agencies. On-site trails will be designed per the City of Orange Recreational Trails Master Plan (RTMP) (April 27, 1993). The implementation of the Specific Plan and associated project will also fund a maximum of $4,100,000.00 in landscape, trails, and other improvements for the Santiago Creek Greenway and Open Space. Please refer to page 4-26 of the Specific Plan (Appendix Q, Trails at Santiago Specific Plan), particularly the last paragraph that describes the final trail alignment process and entities to be involved.

Response to OCPW-5
Comment noted. At the project’s eastern boundary, Trail C continues off-site to the Santiago Oaks Regional Park via the Santiago Creek open space corridor. The project Applicant proposes on-site trails with points of connection at the project boundary with the intent that off-site extensions and connectivity to other trail systems will be by other entities or agencies. On-site trails will be designed per the City of Orange RTMP (April 27, 1993). The implementation of the Specific Plan and associated project will also fund a maximum of $4,100,000.00 in landscape, trails, and other improvements for the Santiago Creek Greenway and Open Space. Please refer to page 4-26 of the Specific Plan (Appendix Q, Trails at Santiago Specific Plan), particularly the last paragraph that describes the final trail alignment process and entities to be involved.
Response to OCPW-6

Comment noted. In RDEIR Section 3.9, Hydrology and Water Quality, the RDEIR discusses the potential effects of the project on storm drainage in RDEIR Section 3.9, Hydrology and Water Quality. Specifically, Impact HYD-3, on page 3.9-23, evaluates the downstream effects of the project.

Table 3.9-6 summarizes existing and proposed discharge rates into Santiago Creek from the main drainage area for the 2-year and 100-year storm events. As shown in the table, the project would achieve a net reduction of stormwater discharge during storm events.

**Table 3.9-6: Existing and Proposed Discharge Rates—Proposed Storm Drainage System**

<table>
<thead>
<tr>
<th>Storm Event</th>
<th>Drainage Area</th>
<th>Cubic Feet/Second</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>2-Year</td>
<td>72.58 acres</td>
<td>44.46</td>
<td>28.72</td>
</tr>
<tr>
<td>100-Year</td>
<td></td>
<td>180.05</td>
<td>82.72</td>
</tr>
</tbody>
</table>

Source: Fuscoe Engineering 2016.

Table 3.9-7 summarizes existing and proposed discharge rates into the Handy Creek storm drain for the 2-year and 100-year storm events. As shown in the table, the project would achieve no net increase discharge of stormwater into the Handy Creek storm drain during storm events. Peak flows to Handy Creek channel through will not be altered through implementation of the project and will not pose any additional hazards or risks to downstream residents. This drainage area is not proposed to receive any increases in impervious area as it is designated as open space. Refer to the Hydrology Report in RDEIR Appendix K, Hydrology and Water Quality Reports, for full calculations compiled via AES Hydrology Software and HydroCAD Detention Modeling Software.

**Table 3.9-7: Existing and Proposed Discharge Rates—Handy Creek Storm Drainage**

<table>
<thead>
<tr>
<th>Storm Event</th>
<th>Drainage Area</th>
<th>Cubic Feet/Second</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>2-Year</td>
<td>1.46 acres</td>
<td>1.41</td>
<td>1.41</td>
</tr>
<tr>
<td>100-Year</td>
<td></td>
<td>4.43</td>
<td>4.43</td>
</tr>
</tbody>
</table>

Source: Fuscoe Engineering 2016.

This serves to illustrate that the proposed storm drainage system would slow, reduce, and meter the volume of runoff leaving the project site and ensure that downstream storm drainage facilities are not inundated with project-related stormwater. Impacts would be less than significant. Refer to Appendices 2, 3, and 5 within the Hydrology Report in RDEIR Appendix K, Hydrology and Water Quality Reports, for calculations compiled via AES Hydrology Software and HydroCAD Detention Modeling Software.
Finally, the proposed project would not alter the two unnamed storm drains located in the northwestern portion of the project site. Flow patterns in the project site’s post-development conditions will continue to be conveyed in a similar manner to existing conditions. Refer to the existing and proposed hydrology maps in Appendix 7 of the Hydrology Report in RDEIR Appendix K, Hydrology and Water Quality Reports, for further information on existing and proposed runoff patterns.

As part of the review of final grading and building plans, the Applicant and City will coordinate with OC Public Works and OC Flood and will provide additional information, if needed, to confirm the adequacy of existing facilities to accept stormwater and urban runoff flows. This will be included as a condition of approval.

Response to OCPW-7
As summarized in RDEIR Section 3.4, Biological Resources; subsection 3.4.6, Project Impacts and Mitigation Measures, on page 3.4-50, four sensitive communities that are considered high priority for conservation by the CDFW List of California Terrestrial Natural Communities, include southern cottonwood-willow riparian forest (12.79 acres), blue elderberry scrub (0.13 acre), California brittlebush scrub (0.26 acre), and yerba santa scrub (0.31 acre). There will be no impacts to blue elderberry scrub, California brittlebush scrub, and yerba santa scrub, which will be avoided by the project. The proposed project will impact southern cottonwood-willow riparian forest, including 0.10 acre on-site permanent impacts within the limits of grading, and 0.04 acre permanent, and 0.05 acre temporary impacts due to installation of an on-site storm drain outlet.

In addition, the proposed project would result in impacts to approximately 170 linear feet (50 linear feet permanent, 120 linear feet temporary) and 0.01 acre (0.01 acre permanent, and less than 0.01 acre temporary) of United States Army Corp of Engineers (USACE)/RWQCB “waters of the United States”/“waters of the State,” of which less than 0.01 acre is wetland (permanent), as well as 0.07 acre (0.03 acre permanent, and; 0.04 acre temporary) of CDFW jurisdictional streambed and associated riparian habitat, as discussed in RDEIR Section 3.4, Biological Resources, page 3.4-51.

Response to OCPW-8
Please refer to Master Response Master Response 6—Stewardship of Open Space. Furthermore, refer to pages 4-12 to 4-13 of the October 30, 2018 Specific Plan (RDEIR Appendix Q, Trails at Santiago Specific Plan) for a description of open space environs and intended restoration. Refer to pages 6-13 to through 6-15 for a description of the open space enhancement. Refer to Table 6.1: Plant Material Palette for plant species.

Response to OCPW-9
Trail E is located in Planning Area B south of and above Santiago Creek and north of Planning Area C. To the west it terminates at the project boundary with the intent that it connects off-site to the trail along Cannon Street and to the Santiago Creek Trail west of Cannon Street by others. Coordination efforts will be needed to allow for access from the project site to Cannon Street across the northerly portion of the vacant county-owned property to the west. To the east, Trail E connects with on-site Trail B, which provides connectivity to Trail C and Mabury Avenue to the north, and Trail A and East Santiago Canyon Road to the south. Please refer to page 4-29 of the October 30, 2018 Specific Plan.
(RDEIR Appendix Q, Trails at Santiago Specific Plan), as well as RDEIR Section 2, Project Description, Exhibit 2-11, Preliminary Greenway, Open Space and Trails Plan.

Response to OCPW-10
Please refer to RDEIR Section 2, Project Description, Exhibit 2-11, Preliminary Greenway, Open Space and Trails Plan.

Response to OCPW-11
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.
December 27, 2018

Mr. Robert Garcia
Senior Planner
City of Orange
Community Development Department, Planning Division
300 E. Chapman Avenue
Orange, CA 92866

Subject: Recirculated Draft Environmental Impact Report for the Trails at Santiago Creek Project

Dear Mr. Garcia:

Thank you for providing the Orange County Transportation Authority (OCTA) with the Recirculated Draft Environmental Impact Report (DEIR) for the Trails at Santiago Creek Project (Project). The following comments are provided for your consideration:

1. DEIR Exhibit 2-11 shows proposed project Trails A-F. The text on DEIR page 2-51 indicates "Trails are proposed to be unpaved (decomposed granite or similar) in keeping with the natural setting." However, Trail E is described as having an "all-weather surface" on page 2-52. Consider revising the text on page 2-51 to clarify that Trail E will be paved.

2. DEIR Exhibit 2-11 shows proposed project Trails A-F. The linkage of the Class I bikeway under Cannon Road connecting to the current northerly terminus of the Santiago Creek Class I bikeway is desired. Text on page 3.16-123 indicates the project would extend the existing trail through the project site to Santiago Oaks Regional Park and "would close a gap in the regional bicycle and pedestrian network." If the proposed project does not provide connection to the current Class I bikeway, then a gap will remain between the trailhead and the proposed project improvements. Please clarify if the proposed project will connect to the existing Santiago Creek Class I bikeway or if that remaining segment will need to be implemented by others.

3. DEIR page 2-56 indicates the following regarding pedestrian circulation: "Lastly, there are existing public sidewalks of both the east and west sides of Cannon Street." Consider revising the text to clarify sidewalks are not provided on Cannon Street south of the bridge over Santiago Creek. The pedestrian circulation on the west side of Cannon Street is provided via a
multi-use path (Class I) that serves both pedestrian and bicycling activity. Sidewalks are not provided on the east side of Cannon Street between the Santiago Creek bridge and Santiago Canyon Road. Refer to the language utilized on Page 3.16-123 which indicates there are "no existing sidewalks along the Villa Park Landfill frontage."

4. DEIR Exhibit 2-12b illustrates the proposed circulation and includes various trails. We recommend trails planned to be paved with an "all-weather" surface, such as Trail E, be identified on the exhibit.

5. DEIR page 2-61 discusses the "Santiago Creek Bike Trail" along the northern boundary of the site. We recommend the text be modified to indicate this is an unpaved trail and does not serve all-weather conditions. A Caltrans defined Class I (off-street) bikeway includes an all-weather pavement type.

6. DEIR page 3.16-16 discusses existing bicycle and pedestrian facilities. We recommend the document identify the existing trailhead at the northerly terminus of the Santiago Creek Trail where Santiago Creek crosses under Cannon Street. The trailhead provides a gravel parking lot and is designated as the "Santiago Creek Bike Trail Parking Entrance."

7. DEIR page 3.16-122: given Trail E is planned to be a paved all-weather trail consistent with design standards identified in the Caltrans Highway Design Manual Figure 1003.1A, we recommend the DEIR clarify the paved Class I facility will be consistent with the following local and regional master planning policy documents:


8. DEIR page 3.16-123 indicates the existing Class II bicycle lanes will be maintained with the proposed widening improvements along East Santiago Canyon Road and Cannon Street. We support maintenance of
the Class II bikeways in the project vicinity consistent with the following local and regional master planning policy documents:


Throughout the development of this project, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714) 560-5907 or at dphu@octa.net.

Sincerely,

Dan Phu
Manager, Environmental Programs
Orange County Transportation Authority (OCTA)

Response to OCTA-1
Comment noted. In reference to RDEIR Section 2, Project Description, page 2-51, clarification that Trail E will be paved is added to Section 4, Errata, of this Final EIR.

Response to OCTA-2
Trail A will connect to the existing multi-purpose recreation trail to the east that is located south of The Reserve residential neighborhood. Trail A will extend westerly along the northside of Santiago Canyon Road to project boundary with the intent that the trail will continue off-site west by others. Please refer to RDEIR Section 2, Project Description, Exhibit 2-11, Preliminary Greenway, Open Space and Trails Plan.

Response to OCTA-3
Comment noted. In reference to Section 2, Project Description, page 2-56, clarification that sidewalks are not provided on Cannon Street south of the bridge over Santiago Creek is added to Section 4, Errata, of this Final EIR.

Response to OCTA-4
Comment noted. In reference to RDEIR Section 2, Project Description, Exhibit 2-12b, Proposed Circulation, clarification that Trail E will be paved is added to Section 4, Errata, of this Final EIR.

Response to OCTA-5
Comment noted. In reference to RDEIR Section 2, Project Description, page 2-61, clarification that the Santiago Creek Bike Trail will be unpaved and does not serve all-weather conditions is added to Section 4, Errata, of this Final EIR.

Response to OCTA-6
Comment noted. In reference to RDEIR Section 3.16, Transportation, page 3.16-16, clarification to identify the existing trailhead at the northerly terminus of the Santiago Creek Trail where Santiago Creek crosses under Cannon Street is added to Section 4, Errata, of this Final EIR.

Response to OCTA-7
Comment noted. In reference to RDEIR Section 3.16, Transportation, page 3.16-122, clarification that the paved Class I facility will be consistent with local and regional planning policy documents is added to Section 4, Errata, of this Final EIR.

Response to OCTA-8
The comment appears to support the existing Class II bikeways being maintained with the proposed widening improvements along East Santiago Canyon Road and Cannon Street in the project vicinity. All bikeways will comply with local and regional master planning policy documents. The comment is noted and no further response is required.
December 21, 2018

Robert Garcia, Senior Planner
City of Orange
Community Development Department
300 East Chapman Avenue
Orange, CA 92866

SUBJECT: Comments on the Recirculated Draft EIR for the Trails at Santiago Creek Specific Plan

As was stated in OCWR’s March 29, 2017 comment letter on the Notice of Preparation (NOP) for the Trails at Santiago Creek Specific Plan project (“proposed project” or “project”) and OC Waste & Recycling’s April 9, 2018 comment letter on the Draft EIR for the proposed project, which are hereby incorporated by reference, the project would be located directly east of the 17-acre former Villa Park Landfill (“Landfill”), which is owned and maintained by the County of Orange and was operated by the County from 1962-1966. OC Waste & Recycling (“OCWR”), as the solid waste landfill department for the County of Orange, is responsible for the ongoing maintenance and monitoring of the landfill in order to ensure the public’s health and safety. Environmental control and monitoring systems at the Landfill site include a landfill gas collection and flaring system, landfill gas monitoring probes, groundwater monitoring wells and perimeter surface water collection channels. In addition, OCWR maintains the landfill cover to prevent ponding, erosion and differential settlement. State and local agencies that monitor the site include the California Regional Water Quality Control Board - Santa Ana Region (RWQCB), South Coast Air Quality Management District (SCAQMD) and the County of Orange Health Care Agency/Local Enforcement Agency (LEA).

OCWR has the following comments on the Recirculated Draft Environmental Impact Report (EIR) for the proposed project.

1. Public Health and Safety - Hazards/Landfill Gas – Proximity of Project Homes Immediately Adjacent to Former Villa Park Landfill

Exhibit 2-10 Proposed Site Plan in the Recirculated Draft EIR shows that proposed single-family residences will be located directly to the east of the former Villa Park Landfill property boundary. This has the potential to result in significant public health and safety impacts. The landfill waste boundary extends almost to the eastern property line, which means that the closest homes will be very close to the Landfill. While the landfill does have a landfill gas collection system, it is still very possible for landfill gas to migrate beyond the property boundary into the proposed homes. This is exacerbated by the porous nature of the soil at the project site. Therefore, OCWR recommends that all occupied structures located within a 1,000-foot radius of the Landfill include the following structural controls to limit the potential for landfill gas accumulation underneath and inside the homes: (1) a geomembrane between the slab and the subgrade, (2) a permeable layer with venting pipe between the geomembrane, and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures.
2. **Additional Recirculation of Recirculated Draft EIR Required — Conclusions in Section 3.8 Hazards and Hazardous Materials Based on Outdated Environmental Site Assessments**

a. The Phase I Environmental Site Assessment, prepared by Michael Brandman Associates in 2009 and the Phase II Environmental Site Assessment, prepared by Tait Environmental in 2011, of which some of the findings in the Recirculated Draft EIR are based on, was not prepared for the Trails at Santiago Creek Specific Plan project. Instead, these Environmental Site Assessments were prepared for a different project called the Rio Santiago Specific Plan project that would have been developed on the same project site but was never developed. The site plan for Rio Santiago Specific Plan would have provided a much greater buffer between the Landfill and the closest homes, when compared to the Trails at Santiago Creek Specific Plan, which offers almost no buffer between the Landfill and the closest homes.

Since the Environmental Site Assessments were prepared for the different project, which potentially had less significant public health and safety impacts due to the increased buffer, the Environmental Site Assessments cannot be “recycled” and used for the Trails at Santiago Creek Specific Plan project. The Recirculated Draft EIR for the Trails at Santiago Creek Specific Plan is likely to be found as erroneous and contains flawed information. OCWR requests that the project applicant prepare new Environmental Site Assessments for the Trails at Santiago Creek Specific Plan project with the analysis based on the substantially reduced buffer between the Landfill and the closest homes. Section 3.8 Hazards and Hazardous Materials should also be revised accordingly, based on the findings of the new Environmental Site Assessments. OCWR requests an additional recirculation of the Recirculated Draft EIR in order to address these important public health and safety issues.

b. Section 3.8 Hazards and Hazardous Materials in the Recirculated Draft EIR concludes that the Trails at Santiago Creek Specific Plan project will not result in any significant public health and safety hazards from landfill gas migration after the implementation of mitigation measures. However, Table 3.8-1 Previous Phase I/II Environmental Site Assessment Findings states “[T]he possibility exists that the methane could infiltrate future Site buildings in the affected areas and concentrate in rooms with limited air exchanges. Should this occur, the methane concentration could exceed its lower explosive limit (5% by volume), creating a potentially explosive mixture.” Based on the erroneous nature of the Environmental Site Assessments and the lack of a definite commitment by the project applicant to implement structural controls mitigation for all residences located within 1,000 feet of the landfill, the finding included in the Recirculated Draft EIR Section 3.8 Hazards and Hazardous Materials of less than significant after the incorporation of mitigation measures cannot be substantiated and is therefore erroneous. OCWR requests an additional recirculation of the Recirculated Draft EIR in order to address these important public health and safety issues.

c. Mitigation Measure Haz-2a states that “the proposed occupied structures shall be situated strategically to allow for future remediation of any potential landfill gas migration.” Mitigation Measure Haz-2a also states, “Prior to issuance of building permits for dwelling units in areas of the project site where vapor intrusion has the potential to occur, the applicant shall prepare and submit plans to the City of Orange identifying vapor intrusion abatement measures for trichloroethylene (TCE) and methane. Areas where vapor intrusion has the potential to occur are those identified in the Phase II Environmental Site Assessment.” It is unclear from the project documents what the phrase “situated strategically” means.
OCWR requests that the project applicant provide an exhibit and an accompanying narrative indicating (1) the placement of occupied structures on lots bordering the Landfill; (2) identification of the homes that will include environmental health and safety features; (3) the specific structural controls that will be implemented to prevent landfill gas migration; and (4) the analysis used to determine which homes will receive structural controls, especially given that the Phase I and Phase II Environmental Site Assessments were prepared for the prior development project that had a much greater buffer between the Landfill and the closest homes when compared to the current proposed project.

d. OCWR also reiterates its recommendation (from OCWR’s March 29, 2017 and April 9, 2018 comment letters) that all occupied structures located within 1,000 feet of the former Villa Park Landfill be equipped with structural controls as mitigation to prevent landfill gas accumulation underneath and inside the occupied structures, not just those homes that are “situated strategically”. The following should be added as a mitigation measure for the project and should also become part of the Conditions of Approval for the project. For all occupied structures located within a 1,000-foot radius of the Landfill, mitigation should include the following structural controls for each new structure: (1) a geomembrane between the slab and the subgrade, (2) a permeable layer with venting pipe between the geomembrane, and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures. Unless this mitigation measure is included in the new Environmental Site Assessments and new Section 3.8 Hazards and Hazardous Materials, as a mandatory mitigation measure (not optional) that must be implemented, then the EIR must conclude that the proposed project will result in an unavoidable significant adverse impact to public health and safety. The City of Orange, as the CEQA Lead Agency for the project, should include this mitigation measure in the Final Mitigation Monitoring and Reporting Program for the project, and include the mitigation measure as a mandatory condition for development in the Conditions of Approval for the project. The mitigation measure should also require that the structural controls be reviewed and approved by the LEA.

3. Recirculated Draft EIR Does Not Include a Surface Water Drainage Exhibit

The Recirculated Draft EIR does not contain a surface water drainage exhibit. A surface water drainage exhibit and accompanying narrative should be prepared and clearly indicate how surface water runoff will be controlled and conveyed so that there are no impacts to the Landfill final cover or the existing groundwater monitoring wells. The project applicant must demonstrate that the project will not result in drainage from the project site onto the Landfill property or damage existing regulatory compliance equipment. OCWR made this same comment in OCWR’s April 9, 2018 comment letter on the Draft EIR and this was not addressed in the Recirculated Draft EIR.

4. Recirculated Draft EIR Does Not Include a Conceptual Grading Plan Exhibit

The Recirculated Draft EIR does not include a project conceptual grading plan exhibit. Without a conceptual grading plan exhibit, OCWR is unable to determine if the proposed project will require grading into the refuse mass or result in impacts to the landfill gas collection system, groundwater monitoring wells, and/or the surface water collection system. OCWR requests that a conceptual grading plan exhibit be provided to OCWR for comment and that the applicant outline what steps will be taken to ensure that the Landfill will not be impacted by the project.
5. OCWR Landfill Gas Monitoring Probes and Groundwater Monitoring Well on Project Applicant's Property

OCWR currently has three landfill gas monitoring probes and one groundwater monitoring well located on the project applicant’s property bordering the Landfill pursuant to authority granted in a Right of Entry (ROE). These probes and well are required to ensure compliance with State of California regulations and to protect public health and safety. OCWR highly prefers a site plan that includes an undeveloped buffer between houses and the Landfill and leaves the existing probes and well undisturbed in their current locations. However, if a site plan is approved without a buffer and the existing probes and well are disturbed, OCWR seeks assurances that the project applicant will authorize relocation of the probes and well on the applicant’s property in order to maintain compliance with State laws and regulations.

OCWR is willing to meet with the project applicant and the City of Orange to discuss the issues included in this letter. I can be reached at (714) 834-4056 or by email at jeff.arnour@ocwr.ocgov.com.

Sincerely,

Jeff Aurb, Environmental Services Manager

Cc: Jeff Southern, Deputy Director, Waste Management Operations
Orange County Waste and Recycling (OCWR)

Response to OCWR-1

The commenter notes that OC Waste & Recycling is responsible for ongoing maintenance and monitoring of the Villa Park Landfill. The commenter describes the components of the landfill and the agencies that monitor the Landfill.

Comment noted. The comment does not raise any comments or questions about the environmental analysis.

Response to OCWR-2

The commenter states an opinion that the project proposes residences east of the former Landfill, which has the potential for public health and safety impacts. The commenter recommends that all occupied structures located within 1,000 feet of the Landfill include structural controls to limit gas accumulation.

Please refer to Master Response 8—Site Environmental Conditions. Mitigation Measure HAZ-2a requires a Phase II Environmental Site Assessment (ESA) to be conducted and for abatement measures to limit gas accumulation to be incorporated into the project building plans. Structural systems to prevent gas-related hazards will be required to be reviewed by the City of Orange, DTSC, or the Local Enforcement Agency (which is the County of Orange Environmental Health Division). As requested by the commenter, structural controls have been added to Mitigation Measure HAZ-2a to clarify the requirements of Mitigation Measure HAZ-2a. Please refer to Master Response 8—Site Environmental Conditions for clarifying revisions to Mitigation Measure HAZ-2a made in response to this comment.

Response to OCWR-3

The commenter states that the 2009 and 2011 ESAs were prepared for the Rio Santiago Specific Plan project on the same site. The commenter requests that the project prepare a new Environmental Site Assessment based on the proximity of the Landfill’s boundary to the proposed residences.

Please refer to Master Response 8—Site Environmental Conditions. Mitigation Measure HAZ-2a requires a supplemental Phase II ESA to be prepared in substantial compliance with applicable guidance documents, including but not limited to the DTSC Advisory—Active Soil Gas Investigation and Final Guidance for Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. The Phase II ESA will use current DTSC HHRA Note 3 and Regional Screening Levels established by the EPA. In addition, all occupied structures within a 1,000-foot radius of the Landfill will include structural controls to limit the potential for landfill gas accumulation. Following implementation of structural controls, if DTSC concludes that additional mitigation is needed, the applicant will work with DTSC and the City to jointly develop additional mitigation measures that meet residential standards.

Responding to the comment that the existing ESAs are not adequate and cannot be used for this project, the current ESAs are adequate to provide information on the project site and environmental issues present on the site. That type of analysis is not dependent on changes in the proposed
project, as the purpose of the ESA is to characterize the underlying site. Also, further analysis will be required pursuant to Mitigation Measures HAZ-2a and HAZ-2b, and the further site assessments required by those measures will include the criteria requested by the commenter.

Under CEQA case law, it is appropriate for an initial level of site characterization and analysis to be done as part of an EIR process, with follow-up work included as part of a mitigation measure. For example, in City of Maywood v. Los Angeles Unified School District (2012) 208 Cal.App.4th 262, the Court upheld an EIR for a new school site against claims that the EIR did not adequately evaluate environmental hazards. The EIR relied on some preliminary environmental studies, including a Preliminary Endangerment Assessment (as required for school sites by statute). The EIR also committed to the later preparation of a supplemental site investigation, a remedial action work plan, and cleanup according to that work plan. Commenters on the EIR claimed that further analysis was required prior to certification of the EIR, and that the school district could not defer a more specific study until after the new school project was approved. As here, the EIR included a mitigation measure calling for further study and cleanup. The court held that the EIR analysis was adequate. A similar result was reached in the decision in Citizens for a Sustainable Treasure Island v. City & County of San Francisco (2014) 227 Cal.App.4th 1036, where the Court upheld a general analysis of environmental hazards with follow-up mitigation.

Response to OCWR-4

The commenter states an opinion that the less than significant conclusion in Section 3.8, Hazards and Hazardous Materials, cannot be substantiated because there is an identified possibility of methane infiltrating future site buildings.

Please refer to Response OCWR-3 and Master Response 8—Site Environmental Conditions. Mitigation Measure HAZ-2a requires a supplemental Phase II ESA to be prepared and for vapor intrusion abatement measures for methane to be reviewed by the City, Local Enforcement Agency (which is the County of Orange Environmental Health Division), or DTSC prior to issuance of building permits for dwelling units where vapor intrusion has the potential to occur. The Phase II ESA will use current DTSC HHRA Note 3 and Regional Screening Levels established by the EPA. Mitigation Measure HAZ-2a requires that all occupied structures within a 1,000-foot radius of the landfill will include the following structural controls to limit the potential for landfill gas accumulation: (1) a geomembrane between the slab and the subgrade; (2) a permeable layer with venting pipe between the geomembrane; and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures. This measure is an appropriate basis for the conclusion that impacts will be mitigated to a less than significant level.

Response to OCWR-5

The commenter states an opinion that the term “situated strategically” in Mitigation Measure HAZ-2a is unclear. The commenter requests that the applicant provide an exhibit and narrative indicating placement of proposed occupied structures bordering landfill; identification of the homes that will include health and safety features; specific structural controls that will be implemented; and which homes will receive structural controls.
Please refer to Master Response 8—Site Environmental Conditions. The term “situated strategically” has been clarified to include “using supplemental Phase II ESA data and DTSC’s review thereof, so that structures will not interfere with future remediation of any potential landfill gas migration; this shall be demonstrated in connection with approval of any tentative maps for the project.”

The Villa Park Landfill location is shown in RDEIR Section 2, Project Description, Exhibit 2-2, and the proposed area of Low Density Residential homes is shown on Exhibit 2-6. As required by Mitigation Measure HAZ-2a, a supplemental Phase II ESA would be completed and all occupied structures within a 1,000-foot radius of the Landfill will include structural controls to limit the potential for landfill gas accumulation and to ensure that homes would not be affected by hazardous conditions resulting from the Villa Park Landfill. If DTSC concludes that additional mitigation is needed, the applicant will work with the DTSC and the City to jointly develop additional mitigation measures that meet residential standards. It is appropriate under CEQA for mitigation measures to specify future performance standards that must be met to mitigate an impact where, as here, future studies are required to determine specific measures that will be implemented to reduce the effects of an impact. (See, e.g., POET, LLC v. State Air Resources Bd. (2013) 218 Cal.App.4th 681, 735.) The specific measures to be implemented will include identification of specific health and safety features for specific homes based on the supplemental Phase II ESA.

Response to OCWR-6

The commenter recommends all occupied structures within 1,000 feet of the Landfill to be equipped with structural controls to prevent landfill gas accumulation. The commenter suggests a mitigation measure that includes structural controls for all new structures within 1,000 feet of the Landfill.

Please refer to Master Response 8—Site Environmental Conditions. Mitigation Measure HAZ-2a requires a Phase II ESA to be conducted and for abatement measures to limit gas accumulation to be incorporated into the project building plans. Structural systems to prevent gas-related hazards will be required to be reviewed and approved by the City, a Local Enforcement Agency (which is the County of Orange Environmental Health Division) or the DTSC. All occupied structures within a 1,000 foot radius of the Landfill will include the following structural controls to limit the potential for landfill gas accumulation: (1) a geomembrane between the slab and the subgrade; (2) a permeable layer with venting pipe between the geomembrane; and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures.

Response to OCWR-7

The commenter notes that the RDEIR does not contain a surface water drainage exhibit and recommends preparing one to indicate how surface water runoff will be controlled and conveyed so as not to drain onto the Landfill.

The RDEIR contains a surface water drainage exhibit in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-11, Exhibit 3.9-6, Existing Drainage Patterns. In the exhibit, the drainage boundary is shown by a dashed red line. Flow lines are shown in blue with directional arrows. The arrows indicate flow direction. Surface flow follows the direction of the flowlines and drains to Santiago Creek. As shown in Exhibit 3.9-6, surface water runoff does not flow from the project site onto the Landfill site.
RDEIR Appendix K.1 is the Preliminary Hydrologic and Hydraulic Report by Fuscoe Engineering, Inc., dated March 7, 2017. Within that report, Appendix 6 is the Existing Condition Hydrology Map (In Pocket). The map in Appendix 6 is the source document that was adapted for use as RDEIR Exhibit 3.9-6. Appendix 6 demonstrates that the surface water on the project site is controlled and conveyed so that there are no impacts to the landfill final cover.

The RDEIR contains an exhibit for the proposed surface drainage pattern in Appendix 7 of the FEI Preliminary Hydrologic and Hydraulic Report dated March 7, 2017. This is a map of the proposed surface water drainage pattern for the Trails Site. In the map, numerous proposed drainage sub areas are identified on the south side of Santiago Creek, within the proposed drainage boundary, which roughly corresponds to the drainage boundary in Exhibit 3.9-3. Green flowlines with directional arrows indicate the flow direction for each sub area. All surface flow will drain to Santiago Creek. The proposed water runoff condition would not allow water to drain from the proposed site onto the Landfill site. Appendix 7 demonstrates the project will not result in drainage from the project site onto the Landfill property. It also demonstrates that the Trails surface water is controlled and conveyed so that there are no impacts to the Landfill final cover.

Response to OCWR-8

The commenter requests a conceptual grading plan exhibit in order to analyze impacts to refuse mass or impacts to the Landfill gas collection system, groundwater monitoring wells, and/or surface water collection system.

RDEIR Section 2, Project Description, contains a site plan on page 2-53, Exhibit 2-11. Exhibit 2-11 shows the areas proposed for residential density, which would include grading. The site would be graded to accommodate the drainage pattern identified in the “Proposed Condition Hydrology Map” prepared by Fuscoe Engineering, Inc., which is Appendix 7 of RDEIR Appendix K.1. As shown in The Proposed Condition Hydrology Map, the boundary that requires grading would not include the landfill property. The ground surface on the landfill property will not be disturbed by the proposed grading. As discussed in the Master Response 8—Site Environmental Conditions, impacts related to the Landfill were analyzed and determined to be less than significant with mitigation. An active landfill gas collection system at the Landfill collects and flares landfill gases. In accordance with CRWQCB-SA Order No. R8-2013-0010, SCAQMD rule 1150.1, and the site-specific monitoring plan, a groundwater monitoring well system and a vadose zone perimeter gas probe monitoring system is located on the Landfill property. Vapor monitoring at the Landfill property is completed at 18 multi-depth gas perimeter monitoring probes. The location of the monitoring points are shown in Exhibit 3.8-1, which will be included in Section 4, Errata. The perimeter vapor probes along the eastern and northern boundaries of the Landfill, which are located adjacent to the project site, are spaced at intervals of 300 to 650 feet. Based on the location of the County’s monitoring equipment, as shown in Exhibit 3.8-1, it is not anticipated that the project will involve grading that will impact the landfill gas collection system or any monitoring wells. To ensure that no monitoring wells or monitoring probes will be affected by the project, Mitigation Measure HAZ-2c requires that the project applicant contact the City Engineer to consult with and obtain approval from the Orange County Integrated Waste Management Department for the relocation of any monitoring wells or probes that would be impacted by development on the site prior to commencement of any construction that would impact existing landfill or related gas monitoring equipment.
Response to OCWR-9

The commenter notes that OCWR has three landfill gas monitoring probes and one groundwater monitoring well on the project site. The commenter requests an undeveloped buffer between houses and the Landfill and leaving existing probes and the well undisturbed.

Mitigation Measure HAZ-2c requires that prior to the start of any construction activities on the project site that would impact existing landfill or related gas monitoring equipment, the project applicant must contact the City Engineer to consult with and obtain approval from the Orange County Integrated Waste Management Department if any monitoring wells or probes require relocation. Mitigation Measure HAZ-2c would alleviate the commenter’s concern regarding existing probes and the existing well. Exhibit 3.8-1 which is included in Section 4, Errata, shows the location of the Villa Park Landfill’s groundwater monitoring wells and perimeter monitoring probes.
Recirculated Draft Environmental Impact Report (RDEIR) for the Proposed
Trails at Santiago Creek Project (SCH: 2017031020)

South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

SCAQMD Staff’s Summary of Project Description
The Lead Agency proposes to construct 128 residential units on a 40.7-acre portion of 109 acres (Proposed Project). The Proposed Project will also include 69 acres of natural greenway and open space. The Proposed Project is located at 6118 East Santiago Canyon Road on the northwest corner of East Santiago Canyon Road and Orange Park Boulevard. Construction of the Proposed Project would occur over a four and one half year period, beginning on January 1, 2020 and completed by June 6, 2024.

SCAQMD Staff’s Summary of Air Quality Analysis
In the Air Quality Analysis section, the Lead Agency quantified the Proposed Project’s construction and operational emissions and compared those emissions to SCAQMD’s recommended regional and localized air quality CEQA significance thresholds. Based on the analyses, the Lead Agency found that the Proposed Project’s regional construction air quality impacts would be significant and unavoidable for NOx after the incorporation of Mitigation Measure (MM) AIR-1g, which requires the use of U.S. EPA/CARB Tier 4 construction equipment, where commercially available.

SCAQMD’s 2016 Air Quality Management Plan
On March 3, 2017, the SCAQMD’s Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP), which was later approved by the California Air Resources Board on March 23, 2017. Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NOx) emissions in 2023 and an additional 55 percent NOx reduction beyond 2031 levels for ozone attainment.

SCAQMD Staff’s General Comments
As described in the 2016 AQMP, achieving NOx emissions reductions in a timely manner is critical to attaining the National Ambient Air Quality Standard (NAAQS) for ozone before the 2023 and 2031 deadlines. SCAQMD is committed to attaining the ozone NAAQS as expeditiously as practicable. The Proposed Project plays an important role in contributing to regional NOx emissions during the four and a

1 RDEIR, Chapter 3.3. Page 3.3-34.
Robert Garcia

December 26, 2018

half years of construction. Upon review of the RDEIR and the CalEEMod output files provided in the Appendix F, SCAQMD staff found an inconsistency between the MM AIR-1g and tier construction equipment input in CalEEMod. SCAQMD staff recommends changes to MM AIR-1g. The recommended changes will further reduce the Proposed Project’s NOx emissions during construction. Additionally, SCAQMD staff has comments regarding the feasibility of 2010 model year on-road haul trucks during construction. Please see the attachment for SCAQMD staff’s detailed comments.

Conclusion
Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), SCAQMD staff requests that the Lead Agency provide SCAQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful or useful to decision makers and to the public who are interested in the Proposed Project.

SCAQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Alina Mullins, Assistant Air Quality Specialist, at amullins@aqmd.gov or (909) 396-2402, should you have any questions.

Sincerely,

Lijin Sun
Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

Attachment
LS-AM
ORC181114-03
Control Number

1 Ibid.
ATTACHMENT

Recommended Changes to MM AIR-1g
1. As currently written in the RDEIR, MM AIR-1g proposes that all off-road equipment with engines greater than 50 horsepower meet EPA/CARB Tier 4 Final off-road emission standards. If Tier 4 Final construction equipment is not commercially available, the construction contractor shall use the next cleanest piece of off-road equipment (e.g. Tier 4 Interim) available. The term “commercially available” is defined in mitigation measure to take into consideration the “critical-path timing of construction” and “geographic proximity to the project site of [the] equipment”.

Although MM AIR-1g only requires the full implementation of Tier 4 Final construction equipment during construction where they are “commercially available,” the CalEEMod emissions modeling assumed a full implementation and use of Tier 4 Final equipment as a mitigation measure. The selection of “Tier 4 Final” as a mitigation measure in the CalEEMod emissions model is not appropriate because it has likely led to an underestimation of the emissions associated with the construction of the Proposed Project by assuming that the Proposed Project is committed to emissions reductions from Tier 4 Final equipment that cannot be achieved through the use of the “next cleanest piece of off-road equipment” such as Tier 4 Interim or Tier 3 construction equipment. To be consistent with the modeling assumption in CalEEMod, SCAQMD staff recommends that the Lead Agency revise MM AIR-1g as follows. Alternatively, to be conservative, the Lead Agency may revise the CalEEMod emissions modeling to use Tier 3 construction equipment to quantify the Proposed Project’s construction emissions.

MM AIR-1g During construction activities, all off-road equipment with engines greater than 50 horsepower shall meet either EPA or ARB Tier IV Final off-road emission standards. The construction contractor shall maintain records concerning its efforts to comply with this requirement, including equipment lists. Off-road equipment descriptions and information may include but are not limited to equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number.

If engines that comply with Tier IV Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier IV Interim) available. For purposes of this mitigation measure, “commercially available” shall mean the availability of Tier IV Final engines taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. The contractor can maintain records for equipment that is not commercially available by providing letters from at least two rental companies for each piece of off-road equipment where the Tier IV Final engine is not available.

Feasibility of Diesel-Fueled Haul Trucks with 2010 Model Year Engines
2. In the Air Quality section, the Lead Agency found that 196.17 pounds of the 199.47 pounds per day of NOx emissions occurring during the construction phase of the Proposed Project would be generated by off-site sources. While the Proposed Project would require up to 275,400 haul trips during the grading period, the Lead Agency did not propose any mitigation measures to reduce NOx emissions from haul trucks. The Lead Agency stated that it would not be feasible to mandate the use of specific vehicles to haul soils for the Proposed Project. Because no additional feasible mitigation

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5 Ibid. Appendix F AQ-GHG Summary. Annual, Summer and Winter Runs.
6 Ibid. Chapter 3.3. Page 3.3-37
measures are available beyond those already quantified in Table 3.3-9, the project’s regional operational emissions of NOx would continue to exceed the applicable SCAQMD regional construction significance threshold even after implementation of all feasible mitigation.

SCAQMD staff is concerned with the feasibility determination. The On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation by the California Air Resources Board mandates fleet turn-over to ensure that by January 1, 2023 nearly all on-road diesel trucks will have 2010 model year engines or equivalent. Since the construction schedule of the Proposed Project extends into 2024, it is reasonably foreseeable that 2010 model year trucks will become more widely available commercially during the Proposed Project’s construction. Therefore, SCAQMD staff recommends that Lead Agency require the use of diesel haul trucks (e.g., material delivery trucks and soil import/export) that conform to 2010 EPA/CARB truck standards or newer diesel hauls during construction. If the Lead Agency determines that 2010 model year or newer diesel haul trucks are not feasible, the Lead Agency should include good faith, reasoned analysis in the Final EIR supported by factual information as substantial evidence, rather than conclusory statements, in the record. Specifically, the Public Resources Code Section 21061.1 defines feasibility to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors” (CEQA Guidelines Section 15364). The feasibility analysis should, at a minimum, include a discussion on these feasibility factors.

**SCAQMD Rules & Permits**

3. The Proposed Project will be built in close proximity to the closed Villa Park Landfill. If there is potential for construction to impact the landfill or related gas monitoring equipment, the Lead Agency should consult with SCAQMD Permitting and Engineering staff. In the event that the Proposed Project requires a permit from SCAQMD, SCAQMD should be identified as a Responsible Agency in the Final EIR. Any assumptions used in the air quality analysis in the certified Final EIR will be the basis for permit conditions and limits. For more information on permits, please visit SCAQMD’s webpage at: [http://www.aqmd.gov/home/permits](http://www.aqmd.gov/home/permits). Questions on permits can be directed to SCAQMD’s Engineering and Permitting staff at (909) 396-3385.

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South Coast Air Quality Management District (SCAQMD)

Response to SCAQMD-1
Comment noted. The comment provides a summary of the project description. No further response is required.

Response to SCAQMD-2
Comment noted. The comment provides a summary of the air quality and analysis and the findings. No further response is required.

Response to SCAQMD-3
Comment noted. The comment provides a summary of the 2016 Air Quality Management Plan (AQMP). No further response is required.

Response to SCAQMD-4
The comment provides a summary of more detailed comments provided by SCAQMD. Detailed responses are provided in SCAQMD-7 through SCAQMD-9.

Response to SCAQMD-5
Comment noted. Pursuant to California Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), written responses to all comments have been provided and included in this Final EIR. Furthermore, issues raised in comments have been addressed in detail giving reasons why specific comments and suggestions are not accepted.

Response to SCAQMD-6
The comment provides a summary of SCAQMD staff contact information. Comment noted. No further response is required.

Response to SCAQMD-7
The “commercially available” language included in the mitigation measure is consistent with language regularly used by other lead agencies (e.g., San Francisco) and is only intended to be used for unique or specialty equipment. Most standard equipment (e.g., tractors) used during the construction process will be commercially available with Tier 4 Final engines. The mitigation measure should be implementable and feasible, and, in the event that specialty equipment is required and not available with Tier 4 Final engines, the language allows a contractor to continue with construction activities with documentation that Tier 4 Final equipment is not available by contacting multiple rental companies. In addition, with regard to the emission estimates in the RDEIR, the mitigated NOX emissions shown in RDEIR Section 3.3, Air Quality, Table 3.3-17 would continue to exceed the threshold of significance even with implementation of Mitigation Measure AQ-1g. Therefore, a change in the modeling assumptions to include other engines (e.g., Tier 3 as suggested in the comment) would not change the findings in the EIR.

Response to SCAQMD-8
As indicated by the commenter, feasibility means, “being capable of being accomplished within a reasonable period of time.” The amount of soil hauling that would be required for the grading portion of construction activities would result in substantial numbers of trucks traveling to and from the site on a daily basis. In addition, the construction activities would likely involve different sets of construction contractors and haul companies to complete the project. If such a measure is required,
a list of approved trucks that meet 2010 model year standards would have to be developed prior to those trucks coming on-site, and the contractor would have to implement multiple checkpoints to ensure that the trucks matched that list and no other trucks came on-site. Given that the project requires approximately 275,000 haul trips, (over 700 trips per day based on the estimated schedule) and specific make and model of haul trucks can vary by contractor and within each contractor fleet, such a requirement could result in substantial delays in the construction schedule. In addition, as trucks would queue and wait to enter the site, additional idling emissions would be generated, potentially offsetting the benefits of such a measure. As noted by the commenter, California Air Resources Board regulations would ensure that by January 2023 that nearly all trucks will have 2010 or newer engines. In addition, interim steps in the regulation (e.g., vehicles older than 1999 will be replaced with newer engines by 2020) and fleet turnover also ensure that vehicle emission rates will be improved by the start of construction activities.

Response to SCAQMD-9
The proposed project is not planned to result in impacts on the landfill or monitoring equipment. However, the Lead Agency will contact SCAQMD if a permit or other coordination is required for project construction.
December 10, 2018

Robert Garcia, Senior Planner
City of Orange, Planning Division

Re: Recirculated Draft Environmental Impact Report for the Trails of Santiago Creek Specific Plan

Thank you for the opportunity to comment on the above-mentioned project. We expressed our concerns for the original Draft EIR in April of this year. Some bad projects just never go away. We object to this project because in addition to impacts to natural resources, it has the potential to impact CA-ORA-369 and possibly buried portions of CA-ORA-1172. The project area is culturally sensitive because sites situated along Santiago Creek, are part of a Native American traditional cultural landscape. Given the cumulative losses of archaeological sites, sacred sites, and traditional cultural landscapes in Orange County, these cultural resources are of significant value to the local Native American tribal community.

We understand that based on archaeological testing, CA-ORA-369 does not appear to be significant. This determination is based on the outdated idea that the only value of an archaeological site lies in the scientific information it may contain. Retrieve that and it is ok to destroy the site. This thinking does not take into consideration the fact that archaeological sites have cultural and religious values for Native Americans and these values can only be mitigated by avoidance and preservation.

Sincerely,

Patricia Martz, Ph.D.
President
Organizations

California Cultural Resource Preservation Alliance (CCRPA)

Response to CCRPA-1
Comment noted. Section 3.5, Cultural Resources, and Section 3.17, Tribal Cultural Resources, of the RDEIR analyzed the potential impacts to Cultural and Tribal Cultural Resources, respectively.

Section 3.5, Cultural Resources, page 3.5-19, and Section 3.17, Tribal Cultural Resources, page 3.17-7, of the RDEIR notes that letters were sent to three tribes in March 2017 inviting consultation with the City in regards to this project. The City did not receive a response from any of the tribes.

Section 3.5, Cultural Resources, page 3.5-11, of the RDEIR discusses that CA-ORA-369 was thoroughly studied in 1979 and found to yield insufficient depth, midden deposits, or other interpretive data to warrant further investigation. Subsequently, two archaeological surveys in 1994 and 2000 failed to locate any remains of the site. The 2008 investigation also failed to locate the site; however, given the dense vegetation, it was concluded that the site could be obscured, buried, or otherwise concealed from view and monitoring was recommended.

Section 3.5, Cultural Resources, page 3.5-11, of the RDEIR continues to discuss that CA-ORA-1172 is recorded immediately adjacent to the southeast corner of the property, presumably outside the property boundary.

Response to CCRPA-2
Comment noted. Please see Response to CCRPA-1.
December 30, 2018

Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Avenue
Orange, CA 92866

Via E-Mail to RGarcia@cityoforange.org

RE: Recirculated Draft Environmental Impact Report for the "Trails at Santiago Creek"

Dear Mr. Garcia:

Friends of Harbors, Beaches and Parks (FHPB) is an Orange County nonprofit organization with a stated mission to protect natural lands, waterways, and beaches. In addition to our coalition of some 80 conservation and community groups, FHBP has more than 5,000 individual members who support our regional work.

We are writing you concerning the City’s Recirculated Draft Environmental Impact Report (RDEIR) for the proposed "The Trails at Santiago Creek" project in the City of Orange (Project). This letter follows our comment letter of April 8, 2018 (attached), regarding the Project’s Draft EIR. We request that this letter and the April 2018 letter be included in the official record of proceedings for the Project and responded to accordingly.

While the RDEIR corrected some defects in the DEIR, the RDEIR – and the proposed Project itself – remain critically flawed in many respects.

1. **Project Description Lacking.** The RDEIR’s Project Description lacks important information about the site’s remediation. The proposed Project site is known to contain hazardous and other contaminated materials, yet the RDEIR has not described the specific remediation measures necessary to protect public health, property, and the environment. Further, the City never required that a reclamation plan be prepared for the site’s aggregate mining operations; thus, it is not possible to identify the scope of remediation that would be necessary to prepare the site for development. The RDEIR must provide this information so that the public and decision makers can appropriately assess the hazards and understand the remediation measures.

The RDEIR provides inconsistent information about the amount of clean soils that would have to be imported, and the amount of additional mine waste that would need to be exported in order to develop the proposed Project. The import/export figures in the RDEIR do not match the figures in the appendix to the RDEIR, making it impossible for the public and decision makers to understand the environmental impacts and impacts to human health and safety. These inconsistencies create erroneous data with respect to truck haul trips and therefore make it impossible to accurately evaluate the proposed Project’s traffic, air quality, greenhouse gas, and noise impacts. The RDEIR must clearly identify the import/export figures and truck trips required to prepare the site for Project construction.
The Project Description omits any mention of the hazardous environmental conditions that exist on the Project site and the RDEIR does not disclose where houses will be developed to purportedly avoid contamination from asbestos-containing material, vapor intrusion of trichloroethylene and methane, and Total Petroleum Hydrocarbons.

2. **Project Site Subject to Flooding.** The proposed Project property is within a flood plain for Santiago Creek and also sits downstream of two antiquated earthen dams, the Villa Park Dam and the Santiago Dam, constructed over 50 and 80 years ago, respectively. With last year's devastating failure of California's Oroville Dam, the City should be on guard for similar failures with its antiquated dams. The RDEIR should analyze the potential threats, particularly with a project site such as this, which is subject to periodic flooding and inundation. Yet the RDEIR fails to even recognize these threats. Rather, the RDEIR proposes an indefinite "emergency evacuation plan" to be implemented after the proposed Project is approved. Without a clear analysis – and the provision of a detailed evacuation plan before Project approval – the public and decisionmakers are at a loss to assess the threat of dam failure, subsequent flooding of the Project site, and a well-thought-out plan to safely evacuate.

3. **Project Site Subject to Wildfire.** The proposed Project site, adjacent to the Santiago Oak Regional Park and the wooded Santiago Creek Corridor, is also highly prone to wildfire. Despite these threats, the RDEIR does not include the required emergency evacuation or wildfire plans to protect the public. With the devastating California wildfires of 2018, it is incumbent on local government agencies to apply more stringent building regulations and criteria before approving housing developments in high-fire-risk areas such as this.

4. **Project Inconsistent with the Land Use Plans.** It defies logic to conclude, as the RDEIR does, that the proposed Project would be compatible with surrounding areas. The area of Orange where the proposed Project site is located is characterized by low density development and a rural environment. The properties in Orange Park Acres are designated Estate Low Density Residential, which allows only 0-2 dwelling units per acre and is primarily zoned R-1-40. The proposed Project’s density would far exceed surrounding densities and thereby permanently change the character of the area. This inconsistency with the General Plan constitutes a significant environmental impact that has not been adequately analyzed.

Moreover, the developer’s proposal to amend the City’s General Plan for much of the site from Resource Area to Residential conflicts with the City’s existing plan designations for Open Space in the adopted East Orange General Plan and the Orange Park Acres Specific Plan. Resource Area designation provides that the site may serve as a holding zone for future uses compatible with established and planned land uses in surrounding areas. Amending the OPA Plan and East Orange Plan to allow for the development of the proposed Project would allow intensive development on lands that have long been planned for open space and park uses. In particular, both the OPA and the East Orange Plans call for phasing out the sand and gravel extraction operations on the proposed Project site and creating a natural riparian area along Santiago Creek, together with proposed greenbelts, trails, recreation and open space areas.

The RDEIR fails to adequately address the proposed intensification of the site and does not address the significant impacts to the community. Such dramatic amendments to these land use plans breaks the contract with the community that has long provided for appropriate growth while preserving the unique rural character of the area and the promises for open space.
5. **Project Provides No Commitments for Open Space Management.** The RDEIR defers key studies and plans relating to the restoration and long-term management of the Santiago Creek Corridor and other trails and open space. Neither the County nor the City has made a long-term stewardship of the proposed Project’s open space grasslands and trails. Costs associated with restoration and maintenance of the Creek Corridor could well exceed the funding included in the Project. These realities and their impacts must be analyzed in a recirculated EIR.

6. **RDEIR Fails to Properly Analyze Impacts to Threatened Species and Habitats.** The proposed Project site provides suitable habitat for the arroyo toad, a federal endangered species, yet the last surveys for this species were conducted nearly 10 years ago. The RDEIR must include up-to-date surveys for the arroyo toad. Without these surveys, the RDEIR lacks the evidentiary support for its conclusion that impacts to the endangered toad would be less than significant.

   The RDEIR also fails to adequately mitigate impacts to proposed Project sites’ southern cottonwood-willow riparian forest. This forest provides habitat for the least Bell’s vireo and is suitable nesting habitat for the willow flycatcher, a state endangered species. The proposed Project’s proposed 150-foot landscaping and fuel modification setback area adjacent to the southern cottonwood forest is a flawed mitigation measure because landscaping of this setback area would not be restricted to native plants.

7. **RDEIR Fails to Adequately Analyze Project Alternatives.** The RDEIR includes two no-project alternatives, both of which assume the continuation of sand and gravel operations on the project site. Almost 25 years ago, the City determined that the extraction life of the aggregate mine was mostly depleted, so it is unrealistic to assume that sand and gravel mining could continue on an ongoing basis. The RDEIR should be recirculated with no-project alternatives that can be realistically assessed by the public and decision makers, not hypotheticals.

   Although the RDEIR considers a new alternative, the Collaborative Group Alternative, which consists of 47 lots and 47 dwelling units on approximately 40 acres, it rejects it as infeasible, incorrectly asserting that it would not achieve the Project Objectives. This is biased and conclusory. The City should consider the merits of this alternative.

   FHB urges the City to reject this RDEIR because of the many conflicts with land use plans for the site and the failures of the RDEIR to adequately present and assess the myriad environmental impacts of this flawed development proposal.

   Thank you for the opportunity to provide these comments.

   Sincerely,

   Michael Wellborn, President
   Friends of Harbors, Beaches and Parks
   PO Box 9255
   Newport Beach, CA  92658

   Attachment: FHB letter dated April 8, 2018
Friends of Harbors, Beaches, and Parks (FHBPP)

Response to FHBPP-1
Comment noted. The comment consists of introductory remarks that do not raise any questions about the environmental analysis.

Response to FHBPP-2
Comment noted. Both letters will be included in the official record of proceedings for the project. As noted in RDEIR Section 1, Introduction, page 1-1, comments submitted on the previous Draft EIR will be part of the overall administrative record for the project; however, because the RDEIR replaces the previous Draft EIR in its entirety, written responses will only be provided to new comments submitted on the RDEIR during the RDEIR public comment period.

Response to FHBPP-3
Please see Master Response 7—Applicability of SMARA. RDEIR Section 2, Project Description, subsection 2.2, Project History, describes the project site’s history, including the site’s former mining activities of Sully Miller. Mitigation measures pertaining to hazards and hazardous materials are found in RDEIR Section 3.8, Hazards and Hazardous Materials. Mitigation Measure HAZ-2a requires the enclosed structures to be situated strategically to allow for future remediation of any potential landfill gas migration. As explained in RDEIR Section 3.11, Mineral Resources, subsection 3.11.6, Project Impacts and Mitigation Measures, under Surface Mining and Reclamation Act (SMARA), operators of surface mining operations are required to file a mining reclamation plan for post-1975 mining operations. As such, because mining operations ceased on the project site prior to 1976 (see RDEIR Appendix M, City of Orange SMARA Memo), a mining reclamation plan under SMARA is not required for the project site. Mitigation Measure HAZ-2b requires the Applicant to retain a qualified hazardous materials contractor to remove all soil containing Total Petroleum Hydrocarbons in excess of residential development standards set forth by the California Department of Toxic Substances Control (DTSC) or other applicable regulatory agency. Furthermore, Phase I and Phase II Environmental Site Assessments (ESAs) were prepared for the project site and included as RDEIR Appendix J, Phase I and Phase II Environmental Site Assessments, of the RDEIR.

Response to FHBPP-4
As noted in RDEIR Section 2, Project Description, page 2-2, the previously mined portions of the site were “backfilled,” in which unsuitable materials are excavated and replaced with fill, pursuant to a grading permit issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material would be imported to the site during the process, including concrete, asphalt, and rock that would be crushed on-site. Approximately 2,000 cubic yards of material was anticipated to be excavated from the site for reuse and would be blended with the crushed import material for a total of 225,000 cubic yards of backfill. RDEIR Section 3.11, Mineral Resources, further evaluates mineral resource extraction activities. The technical analysis assumes the “worst case” scenario for the project as a conservative measure in their analysis. RDEIR Section 3.8, Hazards and Hazardous Materials, evaluates the existing hazards and hazardous materials setting and potential effects from project implementation on the site and its surrounding area. Furthermore, please refer Master Response 9—Soil Import/Export Numbers.
Response to FHBP-5
Please see Master Response 4—Dam Safety and Risk of Failure.

Response to FHBP-6
Please see Master Response 5—Wildfire Risk.

Response to FHBP-7
As stated in RDEIR Section 3.10, Land Use and Planning, page 3.10-29, the precedence for allowing residential developments in the Orange Park Acres Plan with less than 1-acre minimum lots under clustered zoning has been established by the Orange Park Association’s previous support for Broadmoor Homes, Leadership Housing Specific Plan (Pheasant Run), and Pacesetter Homes (The Wilderness) projects (RDEIR Appendix D, Orange Park Acres Association Fieldstone Letter). More specifically, in May 2003, the Orange Park Acres Board of Directors Supported the Fieldstone/Sully Miller Project consisting of 189 8,000-square-foot lot minimum homes. Orange Park Acres Board of Directors felt this was a good project that had gotten better with time.

Appendix L, Land Use Background, of the RDEIR provides the City Council Approval and Staff Report for the Broadmoor Homes, Leadership Housing Specific Plan (Pheasant Run), and Pacesetter Homes (The Wilderness).

Response to FHBP-8
Please see Master Response 1—Plan Consistency.

Response to FHBP-9
Please see Response to FHBP-7 and Master Response 1—Plan Consistency.

Response to FHBP-10
As stated in RDEIR Section 2, Project Description, page 2-50, the Santiago Creek Greenway Alliance recommends that OC Parks maintain the open space grasslands and trails. However, in the event that OC Parks will not provide management and maintenance for the open space grasslands and trails, management and maintenance would be the responsibility of the Homeowner’s Association, another public agency, or a non-profit organization, including long-term management, as part of the proposed project. The project proponent will provide funding for improvements within the Santiago Creek Greenway. Responsibility for open space grasslands and trails management and maintenance will be discussed with OC Parks as part of the ongoing process.

A financing mechanism will be established for the stewardship of open space within the project, prior to the dedication to a public agency or non-profit organization.

There is no reason for recirculating the RDEIR again for the ongoing discussions regarding the management of the project open space areas. CEQA Guidelines (California Code of Regulations [CCR] § 15088.5) regarding the Recirculation of an EIR Prior to Certification states:

a) A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term “information” can include changes in the project or environmental setting as well as additional data or other...
information. New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement. “Significant new information” requiring recirculation include, for example, a disclosure showing that:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project’s proponents decline to adopt it.
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (Mountain Lion Coalition v. Fish and Game Com. (1989) 214 Cal.App.3d 1043).

Response to FHBP-11
As stated in RDEIR Section 3.4, Biological Resources, page 3.4-15, “focused surveys for this species were conducted by Michael Brandman Associates (MBA) in 2008, and PCR in 2010. No arroyo toads were found on-site. Because of the negative results of focused surveys, and lack of suitable habitat for this species on-site, this species is not expected to occur within the project site. Therefore, surveys were not repeated after 2010.” Surveys were not repeated beyond 2010 due to lack of suitable habitat for this species on-site as determined by a qualified biologist experienced in habitat assessments and focused surveys for this species, and the qualified biologist determined that this species is not expected to occur within the project site not only from the prior negative results of focused surveys, but also the lack of suitable habitat for this species on-site. The species has not been observed in Santiago Canyon since 1974. Based on available evidence, the conclusion of less than significant impacts to arroyo toad is supported.

Response to FHBP-12
The landscaping and fuel modification setback area is not the proposed mitigation for potential impacts to special-status wildlife species (e.g., least Bell’s vireo and willow flycatcher) but is a feature of the project design to provide an interface between the wildlands and the urban development. For least Bell’s vireo, as stated in Section 3.4, Biological Resources, subsection 3.4.6, pages 3.4-40 through 3.4-43, of the RDEIR, “any potential impacts to the least Bell’s vireo would be considered potentially significant. Mitigation Measures BIO-2a through BIO-2c are proposed to reduce impacts to a less than significant level.” Extensive mitigation measures to offset impacts and protect least Bell’s vireo are detailed in Mitigation Measures BIO-2a through BIO-2c on pages 3.4-45 through 3.4-47.

For willow flycatcher, as stated in Section 3.4, Biological Resources, subsection 3.4.6, page 3.4-44, of the RDEIR, “although the black willow scrub/ruderal habitat will be permanently removed, this isolated stand of willows provides only a small, limited amount of foraging habitat for this species. The riparian habitat within Santiago Creek that will be avoided by the proposed project will still be available to provide a greater area of contiguous habitat for foraging opportunities.” There is no
record of willow flycatcher nesting in this riparian habitat. Therefore, “impacts to potential willow flycatcher foraging habitat are not expected to threaten regional populations of this species and would be considered less than significant, and no mitigation measures would be required.”

Response to FHBP-13
Comment noted. Please refer to Master Response 3—Analysis of Alternatives.

Response to FHBP-14
Comment noted. Please refer to Master Response 3—Analysis of Alternatives.

Response to FHBP-15
Comment noted. The comment consists of conclusory remarks.
December 31, 2018

City of Orange
Mr. Robert Garcia, Senior Planner
300 Chapman Avenue
Orange, CA 92866

RE: Sully-Miller Recirculated Draft Environmental Impact Report

Dear Mr. Garcia,

I wrote to you in April 2018 in response to the DEIR report. I have had time to review the RDEIR and, while it fixes some of the deficits in previous documentation, there remains significant issues with the project. These include but not limited to omission in project description, enviromental impact issues, direct and significant land use conflict, and more.

As I read Milan's RDEIR it

1. fails to meet the requirements of the California Environmental Quality Act (CEQA)
2. conflicts with the fundamental policies of the Orange General Plan and the OPA Plan
3. fails to address and analyze the projects potential to create significant hazard to the public and environment - it defers analysis and mitigations
4. now estimates construction activities will require up to 275,400 truck trips for grading but Milan's import/export figures in the technical appendix are higher
5. no way gages the impacts that would be added as there is no reclamation plan included
6. is riddled with errors such that cannot be evaluated the real impacts to public health and safety, traffic, air quality, noise, hydrology, hazards or climate change.
7. raises more questions than it answers.
8. would violate State Planning and Zoning Laws if this project was approved.

The established property rights of the existing residents must be honored and the precedent this project sets, in relation to property rights, is not favorable. As this is an overall bad project, The City is not obligated in any way, shape or form to approve bad projects.

Respectfully,

Adam L. Duberstein
Founder, Respect Orange
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Respect Orange (RESPECT)

Response to RESPECT-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. Commenter does not elaborate further on why the RDEIR fails to meet the requirements of CEQA with regard to project description, environmental impacts, and land use conflict; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.

Response to RESPECT-2
The RDEIR complies with CEQA in every respect, including its analysis of environmental impacts. Commenter does not elaborate further on why the RDEIR fails to meet the requirements of CEQA; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.

Response to RESPECT-3
The RDEIR analyzes the project’s consistency with applicable land use plans adopted for the purpose of avoiding or mitigating environmental effects pursuant to CEQA Appendix G threshold, under Impact LUP-1 and Impact LUP-2 in RDEIR Section 3.10, Land Use and Planning, pages 3.10-11 to 3.10-30. Table 3.10-2, General Plan Consistency Analysis, in particular, analyzes the project’s consistency with General Plan Land Use policies. Table 3.10-4, OPA Plan Consistency Analysis, analyzes the project’s consistency with Orange Park Acres Plan objectives and policies. In all cases, the RDEIR substantiates that the project is consistent with General Plan policies and other applicable land use plans that have been adopted for the purpose of avoiding or mitigating an environmental effect. The commenter does not elaborate further on why the RDEIR conflicts with the fundamental policies of the Orange General Plan and Orange Park Acres Plan; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.

Response to RESPECT-4
As stated in RDEIR Section 3.8, Hazards and Hazardous Materials, the project is not anticipated to create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. Although a limited amount of cleaning supplies and other potentially hazardous fluids may be stored on-site during construction and operation, they are not anticipated to be of sufficient quantity to pose a significant hazard to the public or environment. Additionally, the project would comply with all applicable laws regarding the use, storage, and disposal of hazardous materials, including provision of spill prevention kits in accordance with California Occupational Health and Safety Administration (Cal/OSHA) standards.

Response to RESPECT-5
Please refer to Master Response 9—Soil Import/Export Numbers.

Response to RESPECT-6
A City Attorney memo is included in RDEIR Appendix M, City of Orange SMARA Memo, with regard to SMARA.

Response to RESPECT-7
Commenter does not elaborate on why the RDEIR does not effectively evaluate impacts related to public health and safety, traffic, air quality, noise, hydrology, hazards or climate change. Impacts
related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to Hazards are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials. Impacts related to Hydrology are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to Noise are discussed in RDEIR Section 3.12, Noise. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Climate change, by nature, is a cumulative impact. Potential impacts of climate change within California are discussed in RDEIR Section 3.3, Air Quality, pages 3.3-1 to 3.3-3.

Response to RESPECT-8
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to RESPECT-9
Comment noted. Impacts related to zoning are discussed in RDEIR Section 3.10, Land Use and Planning. Commenter does not elaborate further on why the project would violate State planning and zoning laws if it were approved; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.

Response to RESPECT-10
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.
Mr. Robert Garcia, Senior Planner  
City of Orange, Community Development Department, Planning Division  
300 E. Chapman Avenue  
Orange, CA 92866

Re: Recirculated Draft Environmental Impact Report – Trails at Santiago Creek

Dear Mr. Garcia,

This letter provides our comments on the RDEIR dated November 14, 2018. We appreciate this opportunity to again comment on the proposed project.

As we said in our previous letter regarding the original DEIR we have reviewed the project plan from the perspective of our mission statement and believe that the trail system and open space allocation described in the RDEIR could be very supportive of our vision for the Santiago Creek Trail and Greenway. They could provide a major part of the added trail needed to link the existing Santiago Creek Trail to Santiago Oaks Regional Park and open space that would be a very scenic element of the Greenway. For these reasons we support this project. We take no position on the many concerns regarding the project’s housing elements. However there are other remaining concerns in the RDEIR that we would like to comment on. They are: trail connectivity, site remediation and site ownership.

**Trail Connectivity and Circulation.** The proposed trail plan includes an essential connection to the existing Santiago Creek Trail east of the project site. However, it is not clear who is responsible for actual implementation of this connection and we would like this issue clarified. In addition (as in the original DEIR) the plan does not include a link to the existing trail west of Cannon Street. Without this linkage, the proposed trail system will not provide its potential valuable addition to the Santiago Creek Trail. It will be merely an amenity for the proposed housing project. It is essential that one of the proposed project trails connect to the existing Santiago Creek Trail west of Cannon Street.

**Site Remediation.** We would like confirmation that remediation of the project site will include restoration of the creek and open space (as much as reasonably possible) to its natural state. Discussion of site remediation in the RDEIR appears to be limited to mitigation of the effects of the old sand and gravel operation and of hazardous waste. We would like to see a specific description in the RDEIR of the remediation planned for the creek and open space, and definition of a qualified agency responsible for overseeing this task.

**Ownership, Care and Maintenance.** As the RDEIR correctly states, a responsible agency to take possession of the trails and open space areas offered by the project’s applicant has not yet been identified. The back-up plan given in the RDEIR is that unless and until the applicant’s offer of the property is accepted, the trails and open space will be privately owned and maintained by the future project homeowner’s association. We have two concerns about this plan. The first is with
regard to the HOA’s competence and financial capacity to deal with the required effort, particularly considering the presence of the creek and native trees on the property. The second is the possibility (likelihood?) that the trails and open space at some point could be closed to the public by the HOA.

As we said in our previous letter, the most logical plan for this section of Santiago Creek is that it to be turned into an extension of Santiago Oaks Regional Park, cared for and maintained by OC Parks as part of the regional park system in the area. This will assure the trees and plants are maintained, the trails cared for, and the creek properly managed in perpetuity. In order to have a long-lasting greenway and public enjoyment of the site, we believe a permanent qualified steward such as OC Parks is necessary along with an identified funding source.

Please feel free to contact us with any questions concerning these comments.

Sincerely,

John Moore
President, SCGA
johnmoore2889@sbcglobal.net

Pamela Galera
Vice President SCGA
pamelagalera85@gmail.com

cc: Bonnie Hagan, Director, Community Services, Orange
Stacy Blackwood, Director, OC Parks
Todd Spitzer, Supervisor Orange County 3rd District
**Santiago Creek Greenway Alliance (SCGA)**

**Response to SCGA-1**
Comment noted.

**Response to SCGA-2**
The comment appears to support the project’s trail system and open space allocation. The comment is noted and no further response is required.

**Response to SCGA-3**
Comment noted. Any trails west of the project site and west of Cannon Street will be implemented by others. Trail E, whose alignment is comparable to the trail depicted in the 2018 Santiago Creek Vision Plan, page 33, Figure 44, would be the trail that would connect to the Santiago Creek Trail West of the site and of Cannon Street. Furthermore, please refer to Master Response 6—Stewardship of Open Space.

**Response to SCGA-4**
A Preliminary Greenway, Open Space, and Trails Plan is shown in RDEIR Section 2, Project Description, Exhibit 2-11. A detailed landscape cost plan is included in RDEIR Appendix Q, Trails at Santiago Specific Plan. The Applicant is creating a funding source to restore and improve the open space and greenway within the project site. On-site trails will be designed per the City of Orange RTMP dated April 27, 1993. The implementation of the Specific Plan and associated project will also fund a maximum of $4,100,000.00 in landscape, trails, and other improvements for the Santiago Creek Greenway and Open Space. Furthermore, please refer to Master Response 6—Stewardship of Open Space.

**Response to SCGA-5**
Comment noted. Please refer to Master Response 6—Stewardship of Open Space.

**Response to SCGA-6**
Comment noted. OC Parks, another public agency, or a non-profit organization will be the permanent steward of the open space within the project. A financing district mechanism will be established for the funding.
December 28, 2018

Via E-Mail and U.S. Mail

Robert Garcia, Senior Planner
City of Orange Community Development Department
300 East Chapman Avenue
Orange, CA 92866
rgarcia@cityoforange.org

Re: Recirculated Draft Environmental Impact Report for the Trails at Santiago Creek Project

Dear Mr. Garcia:

On behalf of the Orange Park Association (OPA), we have reviewed the Recirculated Draft Environmental Impact Report (RDEIR) for the Trails at Santiago Creek Project (Project). We submit this letter to state our position that the RDEIR fails to meet the requirements of the California Environmental Quality Act (CEQA), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, § 15000 et seq. (Guidelines). Like all concerned members of the public, OPA relies on the environmental document required by CEQA for an honest and thorough assessment of the environmental impacts of a project such as this. The RDEIR’s failure to provide that assessment undermines CEQA’s core purpose.

The EIR is “the heart of CEQA.” Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 392. It “is an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return. The EIR is also intended ‘to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.’ Because the EIR must be certified or rejected by public officials, it is a document of accountability.” Id. (citations omitted).

After carefully reviewing the RDEIR for the proposed Project, we have concluded that it fails in numerous respects to comply with the requirements of CEQA. As described below, the RDEIR violates this statute because it fails to: (1) provide a legally adequate
description of the Project; (2) analyze the significant environmental impacts of the Project or propose adequate mitigation measures to address those impacts; or (3) undertake a legally sufficient study of alternatives to the Project.

To comply with CEQA and to ensure that the public as well as the City’s decisionmakers have adequate information to consider the effects of the proposed Project, the City must again prepare and recirculate a revised draft EIR that properly describes the Project, analyzes its impacts, and considers meaningful alternatives and mitigation measures that would help ameliorate those impacts.

The proposed Project also demonstrates a disturbing disregard for the City of Orange General Plan (General Plan) and the Orange Park Acres Specific Plan (OPA Plan). For decades, both the General Plan and the OPA Plan have called for open space and recreational uses on the Project site—and the City has long recognized that development proposals on the Project site are governed by the OPA Plan. If approved at the intensity and density anticipated by the Project, the City would be reneging on its promise to provide for balanced growth that preserves the integrity of the Santiago Creek corridor and the unique rural character of this area.

In addition, the Project conflicts with fundamental policies of the General Plan and the OPA Plan, thereby violating the California Planning and Zoning Law, Gov. Code § 65000 et seq. And because these conflicts result in significant environmental impacts, the City’s failure to identify them in the EIR violates CEQA as well. Therefore, the City may not legally approve the Project or certify the EIR.

I. THE RDEIR VIOLATES THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

A. The RDEIR’s Flawed Project Description Does Not Permit Meaningful Public Review of the Project.

For an environmental document to adequately evaluate the environmental impacts of a project, it must first provide a comprehensive description of the project itself. This description must be accurate and sufficiently detailed to permit informed decisionmaking. See Guidelines § 15124. Indeed, “[a]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR.” San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 730, quoting County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 193. As a result, courts have found that, even if an EIR is adequate in all other respects, the use of a “truncated project description”...
concept” violates CEQA and requires the conclusion that the lead agency did not proceed in a manner required by law. 

San Joaquin Raptor, 27 Cal.App.4th at 730. “An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.” Id.

Here, the RDEIR’s Project Description fails to meet CEQA’s clear mandate because it lacks fundamental information about the Project’s implementation. Perhaps most concerning, because the City never required that a reclamation plan be prepared for the site’s aggregate mining operations, it is not possible to identify the scope of remediation that would be necessary to develop the Project site. Indeed, the document raises more questions than it answers. For example, the RDEIR Project Description implies that backfilling (the excavation of unsuitable material associated with the previously mined portions of the site and replacement with fill) already occurred pursuant to a prior grading permit. RDEIR at 2-2. Yet, according to the RDEIR’s technical appendix, grading permits will be requested from the City to complete the backfilling of the previously mined portions of the project site.” RDEIR Appendix I (Geotechnical) at pdf page 9. The revised EIR must disclose the precise status of the backfilling that has already occurred on the Project site pursuant to Grading Permit No. 2047 and the scope of the additional backfilling needed.

The RDEIR also provides inconsistent information about the amount of clean soils that would have to be imported, and the amount of additional mine waste that would need to be exported in order to develop the proposed Project. The RDEIR Project Description states that the Project will require the import of 877,000 cy of clean materials and the export of about 500,000 cy of silty soils. RDEIR at 2-62; 3.3-34. The appendix included in the RDEIR, however, identifies import/export figures that are substantially greater than that disclosed in the main text of the RDEIR. Appendix I (Geotechnical Investigation) identifies a total to 3,348,200 cy to be over excavated (2,248,200 cy will be exported and 1,100,000 cy will be imported). Appendix I, pdf page 9. The revised EIR must reconcile the import/export figures presented in the RDEIR with those identified in Appendix I. It is particularly troubling that the RDEIR relies on grading details prepared for an entirely different project. Specifically, Appendix I was prepared in connection with the Rio Santiago Specific Plan, not the Santiago Trails Project. See Appendix I at 4. The failure to provide accurate details relating to the site’s remediation creates all sorts of analytical problems, including making it impossible to verify the accuracy of the RDEIR’s analysis of environmental impacts including traffic, air quality, health risk, water quality, greenhouse gas emissions, and noise.
Moreover, because the Project Description provides such scant information, it is entirely unclear what actions must occur to ensure that the site can be made safe for human occupation. For example, the document mentions, almost in passing, that the mined portions of the site were used for residue silt deposition (otherwise known as silt ponds). RDEIR at 3.8-5. According to the Environmental Site Assessments (RDEIR Appendix J), “there is a high probability that [the site] contains a recognized environmental condition(s) relative to hazardous materials.” RDEIR Appendix J – Phases 1 and 2 Site Assessments (Site Assessments) at pdf page 15. Moreover, certain of the silt ponds may contain hazardous compounds, including, “asbestos-containing material” (Site Assessments at pdf page 1011,) yet the Project Description does not even mention these alarming facts.

Nor does the Project Description disclose that past mining operations and the neighboring landfill have resulted in the potential for (1) vapor intrusion of trichloroethylene (TCE) and methane into future dwelling units and (2) elevated levels of Total Petroleum Hydrocarbons in soil, or that these hazardous materials could pose a significant human health risk, exceed explosive limits, and threaten the environment. RDEIR at ES-30; 3.8-3; 3.8-12. Rather, one must review the EIR’s technical appendices to learn about these potentially devastating health and safety consequences. See RDEIR Appendix J at 17. Despite these serious potential threats, the RDEIR simply asserts that the details about grading and earthwork will be worked out later and that the Project’s houses will be *situated strategically* to avoid harming future residents. See, RDEIR at ES-30 and 2-62; see also RDEIR at 3.6-8, stating that a “design-level Geotechnical Investigation” will be prepared prior to the issuance of building permits, and RDEIR at 3.8-13, explaining that (unspecified) vapor intrusion abatement measures and a plan for removing hazardous soils will be developed *after* the Project is approved.

Relatedly, the RDEIR mentions almost in passing that groundwater and methane monitoring wells exist on the western portion of the Project site, but the RDEIR fails to describe whether these wells pose any constraints on development of the site. RDEIR at 2-2. Unless and until the applicant prepares a detailed site development plan, the RDEIR will remain unable to address and analyze the Project’s potential to create a significant hazard to the public and the environment.

The RDEIR’s failure to provide fundamental information about remediation of the Project site and site development details is a serious violation of the law. CEQA requires this information be disclosed now in order to evaluate the Project’s potential to create a significant public hazard. Guidelines §15124 (a).
The Project Description omits other critical details relating to public safety. The Project site is within the dam-failure inundation area of two dams. RDEIR at 4-7. The Villa Park Dam (constructed in 1963) is located just 1.5 miles upstream of the Project site while the Santiago Dam (completed in 1931) is located about 5.0 miles upstream. RDEIR at 3.9-2; 3.9-10; 3.9-26. The Orange County Operational Area Emergency Action Plan Dams/Reservoir Failure Annex indicates that it would take a dam-failure flood wave 105 minutes to reach the Project site from Villa Park Dam and 255 minutes from Santiago Dam. Id. at 3.9-26. Despite these potential threats, the RDEIR does not bother to identify procedures or protocols to protect residents from a flood caused by a dam failure. In light of the dramatic failure of the Oroville dam last year, we can no longer be over confident and complacent about antiquated dams.1 The Oroville Dam had suffered from years of neglect and its “weak as-constructed conditions and lack of repair durability was not recognized during numerous inspections.” Id. Here, the RDEIR does not even recognize the potential threats; instead the RDEIR simply calls for the preparation and implementation of a non-descript “emergency evacuation plan” after the Project is approved. RDEIR at 3.9-27.

The Project site is also highly prone to wildfire as it is located in the wildland urban interface, adjacent to the Santiago Oaks Regional Park, Weir Canyon, Fremont Canyon, the Santa Ana Mountains, and the wooded Santiago Creek Corridor. RDEIR at 3.18-16. Yet, here too, the RDEIR’s Project Description does not even mention this fact. Nor does it provide a plan that would help protect residents in the event that a wildfire approaches the area. Rather, the RDEIR suggests that the eventual preparation of an ill-defined “fuel modification plan” would protect the public from the threat of a wildfire. Id. Deferring the preparation of wildfire related plans –especially when the Project is in a severe fire hazard zone – defies common sense as well as the law.

The Project also includes the restoration of Santiago Creek yet the RDEIR inappropriately defers until after Project approval the preparation of studies and plans for the creek corridor’s restoration. RDEIR at 2-49; 2-50. Given the importance of Santiago

Creek, the RDEIR must address factors such as the creek’s ultimate alignment, width, depth, bottom configuration, and creek edge treatment, including its riparian and wetland habitats. Until these factors are taken into account, it is not possible to evaluate impacts relating to flood control, water quality, wildlife preservation and protection, trail design, community character, and aesthetics. Nor is it possible to identify the actual costs associated with the creek corridor’s restoration.

In another critical omission, the RDEIR fails to provide any viable plan for the management and maintenance of the Project’s open space lands and trails, including the Santiago Creek corridor. Instead, it simply asserts that open space grasslands and trails should be cared for and maintained by Orange County Parks (OC Parks) while openly acknowledging that OC Parks has made no commitment for long-term stewardship of the Project’s open space grasslands and trails. RDEIR at 2-50. More importantly, it is not known whether OC Parks even agrees with the design, phasing, or the costs of the necessary improvements not to mention the costs to reclaim the area or the standard OC Parks would require if it were to become the landowner. No mention has been made of an endowment that may be required for ongoing land management. The RDEIR simply asserts that in the event that OC Parks will not provide management and maintenance for the open space grasslands and trails, the Homeowners Association will be responsible. Id. However, the RDEIR provides no information about this Homeowners Association let alone any detail about how the Association would be structured to ensure that the Project’s open space lands and trails would be maintained in perpetuity.

Nor does the DEIR contain necessary information relating to the design, phasing, timing, and financing of Project infrastructure. In a development of this size and duration, public and private improvements must be developed in a logical and viable sequence; infrastructure needs to be in place prior to demand for new development. Yet the RDEIR lacks any documentation demonstrating that these critical Project components would be efficiently and effectively implemented. For example, the RDEIR states that the Project will install a network of storm drainage facilities consisting of inlets, underground piping, and basins, but it includes no description or design of these facilities. Instead, it simply asserts that the “system will adequately serve the residential and open space development.” RDEIR at 2-62.

These are just a few of the myriad issues that define sound land use planning and proper environmental review. The RDEIR’s failure to address these issues is particularly frustrating because the Project applicant, which has been planning this Project since at least 2015, is clearly capable of providing these details. RDEIR at ES-3. Unless and until
the applicant confronts these basic planning and design considerations, the RDEIR will remain unable to analyze the Project’s environmental impacts.

At this point, the RDEIR’s failure to describe these critical features sends an ominous message about the process for this large and highly controversial Project. It is simply inconceivable that accountable decisionmakers could make a decision to approve the Project with such incomplete information about fundamental Project components. Yet that is effectively what this RDEIR asks the City to do. Under state law, the RDEIR needs to be revised to include a detailed description of the Project. See County of Inyo, 71 Cal.App.3d at 193. This description must then provide the basis for new, extensive analyses of the Project’s environmental impacts.

Finally, it is important to understand that, in addition to the obvious CEQA implications, the Project appears not to have been planned. Even the casual observer would wonder how the City could be this far along in the administrative process for the development yet still lack the critical substantive land use planning details. Only when the planning is complete will the City will be in a position to actually evaluate the Project’s environmental effects. And only then can it make the intelligent, informed decisions that CEQA requires.

B. The RDEIR’s Analysis of and Mitigation for the Impacts of the Proposed Project Are Inadequate.

In every section of the RDEIR’s analysis of impacts, it is apparent that the authors were faced with an impossible task: They must evaluate the environmental consequences of a Project that almost does not exist. As described above, the RDEIR provides a cursory description of the Project’s essential components. This void becomes even more clear in the chapters purporting to examine the Project’s impacts. Time and again the RDEIR defers analysis and mitigation because there is no way to determine how the Project will affect the environment.

1. The RDEIR Fails to Analyze or Mitigate the Project’s Land Use Impacts.

CEQA requires that EIRs analyze the consistency of a project with applicable local plans, including general plans. See Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors (2001) 91 Cal.App.4th 342, 386-87; Guidelines Appendix G, § IX (b). Inconsistencies with a general plan or other local plan’s goals and policies that were enacted to protect the environment are significant impacts in themselves and can also be
evidence of other significant impacts. See id.; Pocket Protectors v. City of Sacramento
(2004) 124 Cal.App.4th 903, 929. In addition, a recently issued California Court of
Appeal opinion validates a jurisdiction’s ability to deny a project because it does not
comply with its general plan. See Kutzke v. City of San Diego (2017) 11 Cal.App.5th
1034, 1040-42. As discussed below, the DEIR’s failure to adequately analyze the
Project’s inconsistency with the Orange General Plan, the OPA Plan and the East Orange
Plan is a fatal flaw.

(a) The RDEIR Fails to Adequately Analyze the Project’s
Inconsistency with the City of Orange General Plan.

Like all general plans, the City of Orange’s General Plan represents a legally
enforceable “constitution” that governs land development. Orange Citizens for Parks and
Recreation v. City of Orange (2016) 2 Cal.5th 141, 152. It also represents the region’s
vision for its future. A cornerstone objective of the General Plan is to provide policy
guidance for Orange’s future based on innovative land use planning techniques, unifying
the developed portion of the City with East Orange, and expressing community values.
General Plan at LU-1.

The General Plan states: “The quality of the physical environment, built or natural,
plays a large part in defining Orange’s quality of life. Land use conflicts often occur
when newer developments are insensitive to the use, scale or character of existing
development and/or the surrounding natural environment.” General Plan at LU-7. To this
end, the General Plan identifies a goal and a series of policies requiring that future
development preserve the character of existing neighboring communities.

The RDEIR fails to disclose that the proposed Project would be directly at odds
with the following goal and policies:

- **Goal 1.0**: Meet the present and future needs of all residential and business
  sectors with a diverse and balanced mix of land uses.

- **Policy 1.2**: Balance economic gains from new development while
  preserving the character and densities of residential neighborhoods.

- **Policy 1.4**: Ensure that new development reflects existing design
  standards, qualities, and features that are in context with nearby
development.
Policy 1.6: Minimize effects of new development on the privacy and character of surrounding neighborhoods.

Policy 6.1: Ensure that new development is compatible with the style and design of established structures and the surrounding environment.

Instead, the RDEIR concludes, without any evidentiary support, that the Project would be consistent with these policies because it would be “compatible” with surrounding uses. RDEIR at 3.10-12; 3.10-13. Specifically, the document asserts that the Project “promotes land use compatibility with surrounding residential development by clustering the new dwelling units on 40 acres of the site.” RDEIR at 3.10-13. This statement is incorrect and deeply misleading. It is this very clustering—and specifically allowing more than 3 dwelling units per acre—that makes the Project incompatible with surrounding neighborhoods.

This area of Orange is characterized by a unique rural environment with low density development. The properties in Orange Park Acres are designated Estate Low Density Residential, which allows only 0-2 dwelling units per acre with the majority of OPA zoned R-1-40. General Plan at LU-25. The proposed Project’s density would far exceed surrounding densities and thereby permanently change the character of the area. Because the RDEIR lacks any basis to conclude the Project would be compatible with surrounding areas, it must be revised to correct the error—and to acknowledge that the Project’s inconsistency with the General Plan constitutes a significant environmental impact. See Pocket Protectors, 124 Cal.App.4th at 929.

It is also important to emphasize that the General Plan currently designates more than one-half the Project site as Resource Area. According to the General Plan, the Resource Area designation provides that the site “[m]ay serve as a holding zone for future uses compatible with established and planned land uses in surrounding areas.” General Plan at LU-16. For decades, residents have relied on the City’s land use constitution, including this statement and the designation of Sully Miller as “open space”, when supporting development in the surrounding neighborhoods. If the City amends the General Plan to remove this long-held designation, it would renege on its promise to provide for balanced growth that preserves the unique rural character of this area.

The Project would also be blatantly inconsistent with Public Safety Policy 4.3 which calls for the City to ensure that hazardous materials dumpsites are cleaned prior to the establishment of new land uses. RDEIR at 3.10-20. Hazardous conditions exist on the
Project site and the RDEIR lacks the required evidentiary support that these conditions will be remedied prior to the Project’s development.

The Project would also be inconsistent with General Plan provisions relating to the operations of the City’s roadway network. The Project would cause the intersection of Orange Park Boulevard and Santiago Canyon Road to exceed level of service standards in the p.m. peak hour in 2022. RDEIR at 3.16-104. The RDEIR identifies this impact as significant and unavoidable. Id. If approved in its current form, the Project would be inconsistent with the following City of Orange General Plan goals and policies:

- **Goal 1.0 Reduce traffic congestion within the City.**
- **Growth Management Element Policy 1.2:** “Ensure completion of transportation improvements as agreed upon by the City and developer prior to completion of a development project.”
- **Growth Management Policy 1.5** “Require new development projects to link issuance of building permits for the appropriate portion of the development plan to roadway improvements required to achieve the appropriate LOS.”

The RDEIR concludes that the Project is consistent with this goal and these policies by relying on the incorrect assumption that mitigation measures would be adopted to bring this intersection to an acceptable level of operation. RDEIR at 3.10-15. Because this impact was determined to be significant and unavoidable, the RDEIR must be revised once again to disclose the Project’s clear inconsistency with this goal and these policies.

It is also imperative that the revised EIR correctly identify the acreages of the General Plan land use designations for the proposed Project site. The RDEIR incorrectly identifies them as: OS-16.5 acres; RA-77.3 acres; LDR-15.4 acres. RDEIR at 2-34. The correct acreages are: OS-26.40; RA-70.00; LDR-12.6. See City of Orange Planning Commission Staff Report, May 5, 2003 at 3, attached as Exhibit A.

(b) The RDEIR Fails to Adequately Analyze the Project’s Consistency with the OPA and East Orange Plans.

The City has long recognized that development proposals on the Project site must conform to the OPA Plan and the East Orange Plan. According to the City of Orange General Plan, the purpose of the OPA and East Orange Specific Plans is to provide
greater specificity than the General Plan as to the types of uses allowed in the area, the applicable development standards (setbacks, heights, landscape, architecture, etc.), and the required circulation and infrastructure improvements. *Id.* As the General Plan explains, the OPA and East Orange Plans “are often used to ensure that multiple property owners and developers *adhere to a single common development plan.*” *Id.* (emphasis added).

The OPA Plan designates the Project site as “Santiago Greenbelt Plan,” while the East Orange Plan designates the Project site as “Regional Park.” RDEIR at 3.10-4. The RDEIR *incorrectly* identifies the acreages of the Project site within the OPA and East Orange Plans. The document states that 39 and 37 acres of the Project site are within the OPA and East Orange Plans, respectively. RDEIR at 3.10-4. However, the City has long recognized that 56.60 acres of the Project site are within the OPA Plan boundaries while 42.50 acres of the Project site are within the East Orange Plan boundaries. In addition, the RDEIR incorrectly identifies the amount of land that is designated as Open Space within the Santiago Creek Channel. The RDEIR identifies 16.5 acres. RDEIR at 2-13. The correct acreage is 26.40. These mistakes in the RDEIR’s text and mapping must be corrected.

Rather than adhere to the land use designations set forth within the OPA and East Orange Plans—as the City’s General Plan clearly envisions—the proposed Project would amend both specific plans. The RDEIR alleges that amending the plans would create vertically consistent documents that cover and include the proposed Project. RDEIR at 3.10-23. The RDEIR does not, however, disclose or analyze that, by amending the plans, the Project would create internal inconsistencies within the OPA and East Orange Plans. Amending these subordinate plans would allow intensive development on lands that have long been planned for open space and park uses. In particular, both the OPA and the East Orange Plans call for phasing out the sand and gravel extraction operations on the Project site and creating a natural riparian area along Santiago Creek, together with proposed greenbelts, trails, recreation and open space areas. See OPA Plan Policy 11 and East Orange Environmental Policy 10.

As the OPA Plan explains, the “Land Use Element offers a balance in types of residential, public-quasi-public, open space and recreational land use. This balance provides for the retaining of the rural environment, offers economic viability and offers a visually compatible climate for the preservation of the Orange Park Acres lifestyle. Thus, it is believed that the goals of the community have been met.” OPA Plan at 120. In other words, the OPA Plan provides for preservation of important open space to retain the rural lifestyle of Orange Park Acres, while allowing for a reasonable amount of development.
Because it would allow development on lands intended for preservation, the Project would undermine this policy. Moreover, the intensity of the proposed development – more than three units per acre – is entirely inconsistent with the existing rural lifestyle. The OPA Plan sets forth myriad protective policies (see OPA Specific Plan policies attached as Exhibit B). If approved in its current form, the Project would be inconsistent with many of these policies.

For its part, the East Orange Plan strikes a similar balance between development and open space. It states: “[the] central theme of the proposed General Plan is the provision of needed residential development in the Area while simultaneously providing for the protection of the environmental assets of the Area.” East Orange Plan at 107. The Plan describes the “extensive open space-greenbelt network” as one of the “key features of the Plan.” Id. Rather than protect this extensive open space network, however, the Project would place a large subdivision in the midst of this greenbelt network, frustrating both the Plan’s key feature and its central theme.

In sum, the proposed Project would take the heart out of an area intended for preservation and make a mockery of the state-mandated goal of providing for orderly development consistent with the City’s long-range planning documents: the General Plan and the subordinate plans that help implement the General Plan. Instead of amending these land use planning documents, which were developed and approved with community support, the City should abide by the promises made in the plans. At the same time, the RDEIR must be revised to disclose and analyze these land use plan inconsistencies.

2. The RDEIR Fails to Adequately Analyze or Mitigate the Project’s Impacts on Hydrology and Water Quality.

The RDEIR’s evaluation of the Project’s hydrological and water quality impacts is flawed because the document fails to support its conclusions with the necessary facts and analysis.

(a) Water Quality Impacts.

The Project site is a part of the Santiago Creek Watershed, which is a major tributary to the Santa Ana River. RDEIR at 5.9-2. Santiago Creek is listed on the 303(d) List for Impaired Waterbodies for salinity/total dissolved solids/and chlorides, while the Santa Ana River is impaired for indicator bacteria. Id. at 3.9-3. Currently, runoff from the site either sheet-flows into Santiago Creek or flows into inlets along roadways where it enters the Creek via a storm drain system. Id at 3.9-20. Given the Project’s potential to
Robert Garcia, Senior Planner  
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substantially degrade water quality during construction and operation, one would expect
the RDEIR to provide a comprehensive analysis of these potential impacts.  
Unfortunately, the impact analysis is vague, cursory and incomplete.

(i) Construction-related Water Quality Impacts

The RDEIR’s analysis of construction-related impacts raises more questions than
it answers. It acknowledges the potential for increased on-site erosion and sedimentation
impacts. RDEIR at 3.9-19. It also discloses that the Project would create the potential for
discharge of pollutants including Total Petroleum Hydrocarbons (TPH) into downstream
waterways. RDEIR at 3.8-2; 3.8-3; 3.9-20; 3.10-19. The document fails, however, to
to actually evaluate the effect that this contaminated discharge could have on water quality
in these waterways. The end result is a document which is so crippled by its approach
that decisionmakers and the public are left with no real idea as to the severity and extent
of the Project’s potential to degrade water quality. See, e.g., Berkeley Keep Jets Over the
Vineyards v. Monterey Peninsula Water Management Dist. (1997) 60 Cal.App.4th 1109,
1123; Santiago County Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818, 831
(lead agency may not jump to conclusion that impacts would be significant without
disclosing how adverse the impacts would be).

In lieu of actually analyzing the Project’s effect on water quality, the RDEIR
includes a mitigation measure calling for the eventual preparation of a stormwater
pollution prevention plan (SWPPP). RDEIR at 3.9-21. The SWPPP would apparently
include best management practices (BMPs) that would purportedly prevent stormwater
from entering waterways. Id. While it may be sufficient to rely on post-approval BMPs in
certain circumstances, here the site is known to be contaminated with TPH-laden soils and
runoff from the site is known to discharge to Santiago Creek and the Santa Ana River.
Worse yet, the Hydrology and Water Quality Reports included as Appendix K to the
RDEIR fail to explain how the BMPs would protect water quality. In fact, this appendix
does not even acknowledge that contaminated soils occur on site, much less identify
performance standards that would ensure that contaminated runoff does not harm
downstream water bodies. Because the RDEIR provides no evidence that its mitigation
measures would protect adjacent water bodies from contaminated runoff, it cannot
support the conclusion that the Project’s water quality impacts would be less than
significant.

The appropriate first step to development of the Project site, of course, would be
the preparation of a reclamation plan. To date, the City has taken the position that no
reclamation plan need be prepared because the Project site is not subject to Surface Mining and Reclamation Act of 1975 (SMARA). Yet, SMARA was enacted to avoid this exact situation. Pub. Res. Code § 2710-2796. The Project site is known to contain hazardous and other contaminated materials and the applicant has been unwilling to describe the specific remediation measures necessary to protect public health, property and the environment. See RDEIR at ES-31; 3.8-2; 3.8-13. In addition to protecting the environment and public health, a reclamation plan prepared now, prior to Project approval, could protect the City itself because the scope of the reclamation effort will be clearly established, and its cost fully recovered before any development occurs.

(ii) Operational Water Quality Impacts

The RDEIR fares no better in its analysis of, and mitigation for, water quality impacts that could occur during the Project’s operational stage. The RDEIR acknowledges that the Project would increase the amount of impervious surface coverage on the Project site, thereby creating the potential for discharge of urban pollutants into downstream waterways. Such pollutants would include sediment and turbidity, nutrients, organic compounds, oxygen demanding substances, trash and debris, bacteria and viruses, oil and grease, pesticides, and metals. RDEIR at 3.9-20. Here too, the RDEIR looks to a mitigation measure (MM HYD-1b) that calls for BMPs to be implemented as part of a future Water Quality Management Plan. RDEIR at 3.9-21, 3.9-22. Similar to MM HYD-1a, though, the RDEIR fails to provide any substantive explanation as to what these BMPs would entail or how they would be implemented. For example, MM HYD-1b refers to technical terms such as “first flush,” a design concept that would purportedly remove pollutants from the system before entering storm drains (ES-33, 3.9-21), but the RDEIR provides no details about how such a system would operate or its effectiveness. The measure also calls for the applicant to prepare and submit to the City an operations and maintenance agreement identifying procedures to ensure that stormwater quality control measures work properly. RDEIR at 3.9-22. Because the RDEIR does not describe the first flush concept or the operations and maintenance agreement, the reader is forced to read through a 300-plus page technical appendix (Appendix K: Hydrology and Water Quality Reports) to attempt to understand whether water quality would in fact be protected.

As an initial matter, the DEIR’s approach is a wholly unacceptable way of presenting decisionmakers and the public with essential information, and it renders the EIR legally inadequate. Whatever is required to be in the EIR must be in the EIR text, not buried in an appendix. See Santa Clarita Organization for Planning the Environment v. County of Los Angeles (2003) 106 Cal.App.4th 715, 722-23; San Joaquin Raptor, 27
Cal.App.4th at 727. Moreover, Appendix K itself is vague and incomplete and therefore lacks the necessary detail about the Project’s potential impacts or the ability of the BMPs to protect water quality. Compounding the problem, Appendix K reveals that a yet-to-be-formed Homeowners Association (HOA) rather than the applicant will be responsible for the inspection and maintenance of the BMPs. See Appendix K at pdf page 229. Because the RDEIR provides no information on this HOA, including its ability to ensure that stormwater control measures will be effectively implemented over the life of the Project, the RDEIR lacks evidentiary support that the Project’s impacts relating to water quality would be reduced to less than significant levels.

(b) Storm Drainage and Flooding Impacts.

The Project site is located in an area with serious hydrologic constraints, as it contains 100-year and 500-year flood hazard areas. RDEIR at 3.9-25. The 100-year flood hazard areas within the Project site overlap the Santiago Creek channel. Id. The 500-year flood hazard areas overlap areas south of the creek, including areas that were previously mined. Id. The Handy Creek storm drain, which currently accepts runoff from the Project site, has been identified by Orange County as a deficient flood control facility that is not capable of conveying runoff from a 100-year storm event. RDEIR at 3.9-9.

The extensive grading required for the Project will increase impervious surface coverage thereby causing increased runoff. This runoff has the potential to create flooding conditions for downstream neighborhoods. In light of the site’s existing hydrologic constraints, one would expect the RDEIR to thoroughly analyze the Project’s impact on downstream properties. RDEIR at 3.6-9. It does not. Instead, it generally asserts that storm drain facilities will be constructed that would achieve a net reduction of stormwater during storm events. Other than a casual mention of inlets, underground piping, and basins, the RDEIR provides no detailed regarding these facilities, or any documentation that they would be sufficient to protect adjacent properties.

Although the RDEIR includes a table (Table 3.9-6) showing a reduction in discharge rates as a result of the Project (at 3.9-24), it does not provide any explanation as to how these discharge rates were calculated. Without a description of the assumptions and analytical methodology used to calculate discharge rates, the public and decisionmakers cannot determine whether the RDEIR’s information is accurate. CEQA prohibits such a cursory approach to environmental analysis. Rather, the statute requires that an EIR be detailed and complete, reflecting a good faith effort at full disclosure. Guidelines § 15151. As one court put it, the information regarding the project’s impacts must be “painstakingly ferreted out.” Environmental Planning and Information Council...
of Western El Dorado County v. County of El Dorado, (1982) 131 Cal.App.3d 350, 357 (finding EIR for general plan amendment inadequate that did not fully disclose the project’s effect on the physical environment). The RDEIR here does not come close to meeting these requirements.

As regards the Project’s storm drainage, the RDEIR touts the fact that the Project would achieve a no net increase in discharge of stormwater into the Handy Creek storm drain during storm events. RDEIR at 3.9-23. Yet, because the Handy Creek storm drain is currently incapable of conveying runoff from a 100-year storm event, achieving a no net increase in discharge is not sufficient to ensure that downstream properties will not be impacted by the Project.

Finally, the RDEIR fails to provide information as to how the Project would comply with National Pollutant Discharge Elimination System (NPDES) permitting requirements. The prior DEIR referenced the need to comply with the NPDES Program permitted under the Phase II Small Municipal Separate Storm Sewer System (MS4) Permit (Order No. 2013- 0001 DWQ, effective July 1, 2013).2 DEIR at 3.9-16. We commented that the DEIR did not explain how the Project would comply with these requirements. The RDEIR now suggests that the Project would need to satisfy requirements for a large municipal sewer system. RDEIR at 3.9-16. Yet, the RDEIR provides no explanation for this change, leaving the reader in the dark as why the Project needs to meet the requirements for a large, rather than a small, municipal sewer system.

Furthermore, the RDEIR, like the DEIR, fails to explain how the Project would be expected to comply with the MS4 regulations. Given that the Project site is located within a 100-year flood zone and the site drains to Santiago Creek, the Project will almost certainly need to incorporate additional BMPs to satisfy MS4 requirements. The RDEIR’s failure to provide this information renders the document inadequate on two levels. First, it leaves the project description unacceptably incomplete because we do not know the stormwater infrastructure needed for the Project. Second, it makes effective analysis of impacts relating to stormwater management and associated environmental impacts impossible. Without detailed stormwater plans—including the specific

documentation required by the MS4 permit—the RDEIR lacks any evidentiary support that it will be possible to fully mitigate the Project’s stormwater impacts.


As discussed above, given the Project site’s historic mining operations and the site’s proximity to a closed landfill, construction has the potential to result in significant environmental and public safety impacts due to exposure to trichloroethylene-impacted soil vapor, methane, and TPH-contaminated soils. RDEIR at ES-30; 3.8-3. The RDEIR concedes that a workplan has yet to be conducted for the necessary environmental investigations, sampling and hazardous substance remediation at the Project site. RDEIR at ES-31; 3.8-2; 3.8-13. Because this workplan will be prepared to support hazardous substance clean up (see RDEIR at 3.8-2), it is critical that this information be identified now, during the EIR process, rather than after project approval.

A recent decision by the California Supreme Court confirms that information relating to regulatory compliance must be included in the EIR, so that the document can meet the needs of other government agencies overseeing clean-up of the site, such as the Regional Water Quality Control Board, the California Environmental Protection Agency, the California Division of Occupational Safety and Health, and any local regulatory agencies. See RDEIR at 3.8-13. Banning Ranch Conservancy v. City of Newport Beach (2017) 2 Cal. 5th 918, 936; Pub. Res. Code § 21003(a). As the CEQA Guidelines explain, lead agencies must “[c]onsult[] with state and local responsible agencies before and during preparation of an environmental impact report so that the document will meet the needs of all the agencies which will use it.” Guidelines § 15006(g). The CEQA Guidelines similarly specify that “[t]o the extent possible, the EIR process should be combined with the existing planning, review, and project approval process used by each public agency.” Id. § 15080. We can find no logical reason why the RDEIR does not provide this workplan now so that the RDEIR will meet the needs of regulatory agencies.

Finally, as discussed above, it is imperative that a reclamation plan be undertaken now, prior to Project approval.

4. The RDEIR Fails to Adequately Analyze or Mitigate the Project’s Impacts on Biological Resources.

   (a) Impacts to Wildlife Species.
An EIR’s description of a project’s environmental setting plays a critical part in all of the subsequent parts of the EIR because it provides “the baseline physical conditions by which a lead agency determines whether an impact is significant.” Guidelines § 15125(a). “Knowledge of the regional setting is critical to the assessment of environmental impacts.” Guidelines § 15125(c). Although numerous sensitive wildlife species have been observed—or have the potential to occur—on the Project site, the RDEIR fails to conduct the necessary focused surveys for all species potentially impacted by the Project.

The RDEIR’s failure to conduct a survey for the arroyo toad, a Federal Endangered Species and a Species of Special Concern, is especially concerning. The RDEIR admits that suitable habitat for the toad exists on the Project site (RDEIR at 3.4-15; Appendix G [Biological Resources Supporting Information] at pdf page 73) and that no survey has been conducted since 2010. Appendix G at 36. Because the 2010 survey was negative for the toad, the RDEIR preparers simply did not bother to survey the site again, claiming that this species is not “expected” to occur within the Project site. Appendix G at 63 (pdf page 73).

The RDEIR’s approach is unacceptable. The failure to locate a species during a single survey does not suggest that the species is absent from the Project site. Tellingly, the RDEIR does not provide any information about the nature of the 2010 survey, so readers cannot ascertain whether appropriate protocols were followed. It is entirely possible that adverse conditions prevented the investigators from determining the toad’s presence. Disease, drought, or predation may preclude the presence or identification of a species in any given year. For these reasons, the United States Fish & Wildlife Service (USFWS) advises that “to be reasonably confident that arroyo toads are not present at a site, at least six (6) surveys must be conducted during the breeding season.” See USFWS Survey Protocol for the Arroyo toad, May 1999, attached as Exhibit C. Given that the arroyo toad is an endangered species and that the Project site includes suitable habitat for this species (see DEIR at 3.4-15), current protocol-level surveys must be conducted. Without these surveys, the RDEIR lacks the evidentiary support that impacts to the toad would be less than significant.

The RDEIR analytical error is not limited to the arroyo toad. Although the yellow-breasted chat was observed on-site, we could find no indication that the RDEIR analyzed potential impacts to this sensitive species. See RDEIR at 3.4-12, 3.4-38. Accordingly, the revised EIR must include focused surveys and a comprehensive analysis of potential impacts to the chat. If impacts are determined to be significant, the RDEIR must then identify mitigation measures to eliminate or reduce these impacts.
In addition, the RDEIR fails to provide legally enforceable mitigation for the Project’s impacts to southern cottonwood riparian forest, a sensitive community that is considered high priority for conservation by California Department of Fish and Wildlife (CDFW). RDEIR at 3.4-50. The RDEIR calls for temporary impacts to be restored to pre-project conditions, but it does not require the planting of any native species, let alone southern cottonwood riparian forest. See RDEIR at 3.4-53 (calling for temporary impacts to be restored using native species “where appropriate”). Moreover, CEQA does not distinguish between temporary and permanent environmental impacts. Any impacts should mitigated at 1:1 ratio (on-or off-site restoration or enhancement of southern cottonwood riparian forest community).

The RDEIR makes this same error in its mitigation for the Project’s “temporary” impacts to CDFW jurisdictional streambed and associated riparian habitats. Here too, it would allow these sensitive habitats to be replaced with non-native species. RDEIR at 3.4-52. But to maintain the habitat’s value for wildlife, native species must be planted. This is because exotic plants not only sever the food web, but often become invasive pests, outcompeting native species and degrading habitats in remaining natural areas. Unless and until the EIR commits to replacing this lost habitat with other designated sensitive riparian habitat, i.e., locally appropriate native species, the RDEIR has no basis to conclude that these impacts would be less than significant.

Finally, the Project site’s southern cottonwood-willow riparian forest provides habitat for the least Bell’s vireo and is suitable nesting habitat for the willow flycatcher, a State Endangered species. RDEIR at 3.4-1, 3.4-40, 3.4-43. The Project proposes a 150-foot landscaping and fuel modification setback area adjacent to the southern cottonwood forest, but this measure is flawed: landscaping of this setback area would not be restricted to native plants. Id. For the reasons discussed above, all replacement vegetation must be native.

(b) Impacts to Federally Protected Wetlands, Streambeds and Riparian Habitat.

The RDEIR acknowledges permanent and “temporary” impacts to federally protected wetlands, a jurisdictional streambed, and associated riparian habitat. RDEIR at 3.4-51. The proposed mitigation, Mitigation Measure BIO-4, is defective. While MM

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BIO-4 requires mitigating *permanent* impacts at a 2:1 ratio, it calls for restoring wetlands that are *temporarily* impacted only to “pre-project conditions.” *Id.* Again, CEQA does not distinguish between temporary and permanent environmental impacts. Consequently, all Project impacts to these resources should be mitigated at a 2:1 ratio. Moreover, the RDEIR never describes the referenced pre-project conditions, so there is no assurance that satisfactory restoration would even occur. RDEIR at 3.4-52. Finally, MM BIO-4 calls for restoration and revegetation with native species, but only “where appropriate.” *Id.* For the reasons discussed above, all natural communities should be restored with native species.

**(c) Cumulative Biological Resources Impacts.**

The RDEIR fails to provide *any* analysis of cumulative impacts to biological resources. The purpose of a cumulative impacts analysis is to determine whether the proposed Project’s contribution is “cumulatively considerable” when viewed together with environmental changes anticipated from past, present, and probable future projects. Guidelines §§ 15064(h)(1), 15355(b). In determining the significance of the Project's incremental contribution, the question is *not* the relative amount of the Project’s contribution to the existing cumulative problem (i.e., does this Project contribute the same, less, or more than other projects), but whether the addition of the Project's impact is significant in light of the serious existing problem (i.e., is the Project's contribution to the existing environmental problem cumulatively considerable). Thus, the greater the existing environmental problem is, the lower the threshold of significance is for considering a project's contribution to the cumulative impact. *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 120.

Here, the Project site provides habitat for numerous sensitive species, some of which are endangered. Accordingly, any threats to these species—such as from loss of habitat and habitat fragmentation—must be considered a serious existing problem. Thus, the RDEIR’s failure to provide *any* analysis of cumulative impacts to biological resources is a fatal flaw.

**(d) Impacts Related to Tree Removal.**

The primary purpose of the City’s Tree Preservation Ordinance is to regulate the removal and destruction of trees on undeveloped and public interest property and to prevent further destruction of the City’s once vast number of majestic trees. See Municipal Code §12.32.010(A). The Municipal Code explains that the regulation of tree removal is necessary because “large scale tree removal” is “more likely to have an
adverse affect [sic] upon the existing environment.” *Id.* at §12.32.010(b). The Code also states that the “past destruction of trees on such property has not only interfered with the natural scenic beauty and tourism of the city, but also greatly diminished the ecological value of such natural vegetation.” *Id.*

The applicant’s proposal to remove 204 trees must certainly be considered “large scale tree removal.” The RDEIR concludes that removed trees would be replanted at a 1:1 ratio. The document then states that this replanting would reduce impacts to a less than significant level, thereby implying that merely replanting trees would eliminate any conflict with the Tree Ordinance. RDEIR at 3.4-61. But this facile reasoning is untenable. The whole purpose of the Tree Ordinance is to prevent destruction of the City’s once majestic trees. To this end, the Ordinance explicitly acknowledges that trees of historical value may be considered “public interest property.” Municipal Code § 12.32.050. It further defines “historical trees” as those that by virtue of their origin, size, uniqueness and/or national or regional rarity are now likely to be of historical value. *Id.* at 12.32.060.

Tellingly, the RDEIR makes no effort to determine the historical value of the trees that would be removed by the applicant. This omission is particularly egregious in light of the fact that the Biological Resources Appendix calls for an updated tree survey to be conducted. RDEIR Appendix G, pdf page 65. Until this analysis occurs, there is no way of determining whether the trees should be considered “public interest property” under the Tree Ordinance. Given the Ordinance’s strong predilection toward tree preservation, the RDEIR might well recommend a revised site development plan that allows for the preservation of the site’s healthy mature trees.

In sum, the EIR should be revised again both to determine the historical value of the site’s trees and to disclose the Project’s grading and development schedule. It must also analyze any potential inconsistency with the Municipal Code. If the Project’s plan for tree removal is determined to be inconsistent with the Code, the EIR must identify the impact as significant and propose feasible mitigation.
5. The RDEIR Fails to Adequately Analyze or Mitigate the Project’s Traffic Impacts.

(a) Insufficient Information about “Entitled” Uses and Discrepancies Relating to the Amount of Earthwork Required to Prepare the Site for Development Make it Impossible to Verify the Accuracy of the Transportation Impact Analysis.

As discussed above, the RDEIR provides insufficient information about the status of existing recycling and backfill operations on the site. In addition, there are numerous discrepancies and inconsistencies relating to the amount of earthwork required to implement the proposed Project. The consequences of these errors and omissions cannot be overstated. To begin with, it is not possible to verify the accuracy of the transportation impact analysis. Moreover, based on the information that is provided, it would appear that the RDEIR may have substantially underestimated the number of truck trips required to prepare the site for development. The RDEIR also appears to have substantially underestimated the Project’s trip generation. If this is the case, the Project’s traffic impacts would be far more severe than the RDEIR discloses.

(i) The RDEIR’s Failure to Include Accurate Earthwork Data Undermines the Analysis of Traffic (and Other Environmental) Impacts.

The RDEIR’s technical appendices identify an amount of import and export that greatly exceeds the amount identified in the RDEIR’s Project Description. The RDEIR Project Description states that the Project will require the import of 877,000 cubic yards (cy) of clean materials and the export of about 500,000 cy of silty soils. The RDEIR’s appendix, however, identifies a total of 3,348,200 cy to be over excavated (2,248,200 cy will be exported and 1,100,000 cy will be imported). This inconsistency is neither identified nor explained. Apparently relying on the 877,000 cy of material figure, the RDEIR determines that the Project’s construction activities will require up to 275,400 total haul trips during the grading period. RDEIR at 3.3-34. Yet, the number of truck trips would be substantially higher had the RDEIR relied, instead, on the import/export figures identified in the technical appendix. In order to accurately identify the number of haul trips, the revised EIR must clearly identify the import/export figures.

In addition, the amount of on-site construction equipment will vary depending on the amount of earthwork required. Once the revised EIR identifies accurate import/export
figures, it must identify the amount of equipment (e.g., excavators, graders, loaders, etc.) needed to prepare the site for development. All of this information is required not only to evaluate construction-related traffic impacts but also to evaluate the Project’s construction-related air quality, greenhouse gas, noise, hydrological, and hazards impacts.

(ii) The RDEIR Relies on a Questionable Vehicular Trip Credit and Appears to Underestimate the Project’s Trip Generation.

The RDEIR’s transportation impact analysis relies on a “Materials Recycling and Backfilling Operation Trip Credit” for permitted (“entitled”) sand and gravel operations for purposes of identifying the Project’s trip generation. RDEIR at 3.16-20. The document explains that this trip credit was calculated based on traffic counts conducted during normal sand and gravel mining operations in October/November 2010. RDEIR at 3.16-20. The trip credit was determined to be 686 daily trips. RDEIR at 3.16-21. There are numerous problems with the RDEIR’s approach.

First, because the RDEIR omits any information about sand and gravel operations in 2010, it is impossible to verify whether 686 daily trips is even accurate. The revised EIR must describe the nature of operations in 2010. In particular, it must identify the amount of materials imported and the amount of materials exported on a daily basis and the number of daily truck trips used for these operations during 2010.

Second, the City granted Grading Permit No. 2047 (to allow previously mined portions of the Project site to be backfilled) in March 2011. RDEIR at 2-2; RDEIR Appendix P at 5. The RDEIR does not describe how operations changed between 2010 (the year used to conduct traffic counts for purposes of determining the “trip credit” (RDEIR at 3.16-20) and 2011 (the year that, according to the RDEIR, the “site operation was at its peak”). See RDEIR at 3.16-21. Why did the RDEIR preparers rely on the year 2010 for determining the trip credit rather than 2011?

Third, the RDEIR is giving trip credits to activities that appear to have already been completed. According to RDEIR Appendix P (Traffic Impact Analysis), about 29 percent of the traffic for these “entitled” sand and gravel operations is related to materials recycling activities, while 71 percent is related to the backfill operations on the Project site. RDEIR Appendix P at 5. This includes both truck and passenger-car (employees) trips generated from the Project site. Under this recycling/backfill ratio, the backfill activities would be expected to generate about 487 daily trips (71 percent of 686). Assuming some of these trips are made by workers in their vehicles, backfill-related
activities would still generate in excess of 400 trips per day. If 50 percent of these trips represent loaded trucks going to the site and 50 percent represent empty trucks leaving the site, and if each truck carries 10 cy of materials per load, then backfilling operations would average about 2,000 cy per day. These statistics suggest that the total amount of material associated with backfilling operations approved under the 2011 grading permit could be accomplished within about 111 days. In numerous instances, the RDEIR discusses the backfilling activities in the past tense, suggesting that the backfill portion of "Existing Materials and Backfilling Operations" has already been completed. If this is the case, the RDEIR cannot rely on this “trip credit” for purposes of calculating the Project’s trip generation or for purposes of analyzing the Project’s traffic impacts.

(iii) Other Inaccuracies in the RDEIR’s Approach to Trip Generation Undermine the Integrity of the Transportation Analysis.

According to RDEIR Appendix P, materials recycling will continue on the Project site through the construction of the proposed Project, until Planning Area D is developed. RDEIR Appendix P at 4. However, the RDEIR’s trip generation estimates do not appear to take into account trips associated with these materials recycling operations. The revised EIR must revise the trip generation figures to include trips from materials recycling associated with Planning Area D, (until that area is developed).

(b) The RDEIR Fails to Adequately Analyze the Project’s Roadway Safety Impacts.

The RDEIR discusses the Project’s roadway safety impacts, yet this analysis focuses exclusively on the Project’s operations. The RDEIR ignores altogether the safety hazards caused by the Project’s construction phase. By the RDEIR’s own estimates, the Project would result in 275,400 total haul trips during the grading period. RDEIR at 3.3-34. While we question the accuracy of the RDEIR’s truck trip estimate, we can find no logical explanation as to why the document fails to evaluate how a massive increase in haul trucks will impact roadway safety.

The revised EIR must begin its analysis by accurately identifying the number of haul trucks that will be needed for site remediation and preparation. It must then identify the haul route for these construction-related trucks and evaluate how traffic flow would be managed on area roadways and intersections. As part of this analysis, the revised EIR must include a crash prediction model that estimates the frequency of crashes expected on area roadways based on their geometric design and traffic characteristics. The crash
prediction algorithm will need to consider the effect of a number of roadway variables: number of lands, lane width, shoulder width and type, horizontal curve length (if any), any changes in elevation, and grade. If roadway safety impacts are determined to be significant, the EIR must identify mitigation measures capable of addressing these impacts.

6. **The RDEIR Fails to Adequately Analyze the Project’s Construction-Related Air Quality Impacts.**

   The RDEIR fails to accurately evaluate the Project’s potential to expose nearby sensitive receptors to substantial pollutant concentrations because it appears not to have included mobile source criteria air pollutants and toxic air contaminant emissions from the haul trucks transporting soils to and from the site. The DEIR ignored haul trucks altogether. While the RDEIR now acknowledges that the Project will require the use of haul trucks, we can find no evidence that the RDEIR’s air quality analysis was revised to include the criteria and toxic air contaminant emissions that would be generated by these haul trucks. (See RDEIR Table 3.3-7: Construction Equipment Assumptions and Table 3.3-8: Construction Maximum Daily Regional Emissions – Unmitigated, which do not identify haul trucks or their expected emissions). Nor has Appendix B - AQ and GHG Supporting Information been updated since the release of the DEIR.

   Because the RDEIR fails to include emissions from haul trucks, it also underestimates the Project’s potential to expose sensitive receptors to diesel particulates, a known toxic air contaminant. The DEIR’s analysis determined that without mitigation, the Project would exceed the South Coast Air Quality Management District’s Localized Significance Threshold for PM10 and PM2.5. Even with mitigation, the DEIR determined that the Project would come very close to exceeding these same standards. We explained in our comments on the DEIR that had emissions from haul trucks been included, PM10 and PM2.5 would very likely exceed the Localized Significance Thresholds, thereby causing a significant impact. Inexplicably, the PM10 and PM2.5 emissions included in the RDEIR are now far lower than those disclosed in the DEIR. See DEIR at 3.3-41, identifying unmitigated PM10 emissions as 11.95 per day and unmitigated PM2.5 emissions as 4.70 pounds per day; and RDEIR at 3.3-42, showing unmitigated PM10 emissions as 4.97 pounds per day and unmitigated PM2.5 emissions as 3.35 pounds per day.

   The revised EIR must reconcile the varying emission estimates included in the DEIR and the RDEIR. Moreover, once the revised EIR accurately identifies the amount of earthwork necessary to prepare the site for development, it must disclose the number
of haul trucks and amount of construction-related equipment associated with the earthwork. The EIR must then clearly show that emissions from these trucks and equipment have been included in the air analysis. Once the Project’s construction-related emissions have been identified, the EIR’s Localized Significance Analysis must be revised. If particulate emissions exceed the thresholds, the Project may expose nearby sensitive receptors to an elevated health risk, which would likely require the preparation of a health risk assessment.

7. The RDEIR Fails to Adequately Mitigate the Project’s Energy-Related Impacts.

The RDEIR quantifies the Project’s increase in construction- and operational-energy impacts. RDEIR at 3.18-14. Although the Project would increase electricity, natural gas, and petroleum-based fuel consumption, the RDEIR concludes that impacts related to this energy consumption would be less than significant because the Project would not involve inefficient, wasteful and unnecessary use of energy. DEIR at 3.18-15. Yet the RDEIR lacks the evidentiary basis for this questionable conclusion.

The Project would consume 805,632 kWh of electricity and 4.5 million cubic-feet of natural gas each year. RDEIR at 3.18-14. At build-out, the transportation component of the Project would consume 276,430 gallons of gasoline or diesel. DEIR at 6-6. To conclude that the Project would not be inefficient and wasteful, the RDEIR must demonstrate that the Project includes reasonably available measures to decrease energy consumption.

We can find no indication that the Project includes any features that would reduce its consumption of electricity, natural gas, gasoline or diesel fuel. One way for a residential project to decrease energy consumption is to build to LEED (Leadership in Energy & Environmental Design) standards, which require the incorporation of energy-saving features. For example, according to A Citizen’s Guide to LEED for Neighborhood Development, “green buildings” should incorporate strategies like the use of (1) solar energy, (2) water efficiency measures, (3) sustainably sourced (or recycled) materials, and (4) efficient irrigation equipment, in addition to capturing rainwater and recycling wastewater. See A Congress For New Urbanism, Citizen’s Guide to LEED for Neighborhood Development at 13-16, excerpts attached as Exhibit D.

The applicant appears to have ignored all such LEED strategies. Because these strategies have been determined to be feasible by a national advisory committee of
experts in smart growth, the revised EIR should include these measures to mitigate for
the Project’s dramatic increase in energy consumption.

8. The RDEIR Fails to Adequately Analyze or Mitigate the
Project’s Consistency with Plans, Policies or Regulations
Adopted for the Purpose of Reducing GHG Emissions.

The RDEIR provides no evidence that the Project, which would generate more
than 1,900 metric tons of CO2e emissions every year, is doing its fair share to meet GHG
reduction goals. DEIR at 3.7-21. Worse still, because the RDEIR concludes that the
Project would have no significant climate-related impacts, it fails to adopt any mitigation
for the Project’s substantial increase in emissions. The RDEIR provides only a cursory
discussion of the Project’s consistency with the City’s General Plan climate change
policies and provides no analysis at all of the Project’s consistency with state plans to
reduce GHG emissions.

(a) The RDEIR Lacks Any Evidentiary Support that the
Project Would Not Conflict with the City’s General Plan
Climate Change Policies.

Acknowledging that the City has not yet adopted a GHG reduction plan, the
RDEIR identifies a few General Plan policies related to climate change. RDEIR at 3.7-
22; 3.7-25. One of these policies calls for the City to develop a strategy to reduce GHG
emissions within Orange by at least 15 percent from current levels by 2020. RDEIR at
3.7-25. Yet, rather than evaluate whether the Project incorporates features that would
help the City achieve a 15 percent reduction in GHG emissions by 2020, the document
skips this step altogether. Instead, it merely asserts that because the Project preserves
some open space on the Project site, it would avoid additional GHG emissions. Id. The
RDEIR never identifies the amount of GHG emissions that would purportedly be avoided
by preserving open space. Id. Nor does the RDEIR ever explain how a Project that
increases GHG emissions by more than 1,900 metric tons every year could, at the same
time, avoid emissions.

The Project is clearly inconsistent with the City’s climate-related General Plan
policies. These inconsistencies constitute a significant impact of the Project. The EIR
must be revised to rectify this deficiency.
(b) The RDEIR Fails to Analyze the Project’s Consistency With State Plans to Reduce GHG Emissions.

Executive Order (EO) S-3-05 sets forth state policy related to GHG reduction, including reducing GHG emissions to 80% below 1990 levels by 2050. EO B-30-15, signed by the Governor in 2015, establishes a new interim target to reduce GHG emissions by 40 percent below 1990 levels by 2030. The RDEIR acknowledges EO S-3-05 and EO B-30-15, but it never analyzes the Project’s consistency with these directives.

Tellingly, the RDEIR provides no justification for its failure to undertake this analysis. Other agencies have easily performed this analysis. For example, the San Diego Association of Governments (SANDAG) utilized the following threshold of significance in the EIR for its most recent Regional Transportation Plan/Sustainable Communities Strategy: “GHG-4: Be inconsistent with the State’s ability to achieve the Executive Order B-30-15 and S-3-05 goals of reducing California’s GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.” See SANDAG’s RTP/SCS DEIR, GHG Chapter, attached as Exhibit E at 4.8-33.

The SANDAG RTP/SCS EIR evaluated the project’s impacts by calculating a 40 percent and 80 percent reduction from the region’s 1990 emissions and utilizing that as a target reference point for the RTP. It then compared the region’s expected GHG emissions in the years 2035 and 2050 to the emissions that would be necessary to meet the EO trajectories. It included charts showing that the Plan would not meet the EO goals, concluding: “Because the total emissions in the San Diego region of 25.5 MMT CO2 e in 2035 would exceed the regional 2035 GHG reduction reference point of 14.5 MMT CO2 e (which is based on EO-B-30-15 and EO-S-3-05), the proposed Plan’s 2035 GHG emissions would be inconsistent with state’s ability to achieve the Executive Orders’ GHG reduction goals. Therefore, this impact (GHG-4) in the year 2035 is significant.” Exhibit E at 4.8-35. It reached a similar conclusion for the year 2050 goal. This analysis is easily adaptable to the proposed Project’s GHG emissions.

The RDEIR’s failure to compare the Project’s emissions—which will continue for decades if not in perpetuity—against long-term GHG emission reduction policies such as those in EO S-3-05 and EO B-30-15 is unlawful. The public should understand just how far the Project will set the area off course from state-wide reduction goals.

Finally, because the RDEIR fails to undertake a proper analysis of the Project’s climate impacts, it fails to analyze measures to reduce its GHG emissions. At a minimum, the applicant could incorporate strategies such as those discussed above and outlined in
the LEED Handbook. Certain measures to reduce energy consumption for residential projects could also be effective in reducing GHG emissions.

9. **The RDEIR Fails to Identify the Project’s Construction-Related Noise Impacts on Salem-Lutheran Church and School as a Significant Impact.**

The RDEIR fails to recognize that construction of the proposed Project would result in a substantial increase in noise levels at the Salem-Lutheran Church and School. The Salem-Lutheran Church and School, a private elementary school and church, is located approximately 600 feet southeast of the area proposed to be graded. RDEIR at Exhibit 2-2; Exhibit 3.2-1; page 3.3-1. The RDEIR noise chapter fails to even mention this school and church, let alone analyze how construction-related noise might interfere with school/church activities. The revised EIR must provide this analysis. If the Project’s noise impacts are determined to be significant, the document must identify mitigation capable of reducing these impacts.

10. **The RDEIR Fails to Adequately Address the Project’s Growth-Inducing Impacts.**

The RDEIR fails to evaluate, or even acknowledge, the potential for the Project to encourage growth caused by the applicant’s proposal to amend the OPA and East Orange Plans. By amending these plans to allow comparatively higher density (e.g., less than a 1-acre minimum lot size), the Project has the potential to encourage large-lot property owners to subdivide their lots. Consequently, the RDEIR’s conclusion that the Project will not induce growth cannot be sustained. RDEIR at 6-3. The revised EIR must acknowledge the potential for such growth and analyze the associated environmental impacts.

C. **The RDEIR’s Analysis of Project Alternatives Is Legally Inadequate.**

CEQA provides that “public agencies should not approve projects as proposed if there are feasible alternatives . . . which would substantially lessen the significant environmental effects of such projects.” Pub. Resources Code § 21002. Critically, an EIR must consider a “reasonable range” of alternatives “that will foster informed decisionmaking and public participation.” Guidelines § 15126.6(a); *Laurel Heights Improvement Assn.*, 47 Cal.3d at 404 (“An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making.”)
1. The RDEIR Fails to Adequately Identify or Analyze a “No-Project” Alternative.

The RDEIR identifies two no-project alternatives, both of which call for the continuation of sand and gravel operations on the Project site. RDEIR at 5-2. While CEQA does allow the no-project alternative to take into account “predictable actions” if a proposed project is denied, the EIR must nonetheless conduct an appropriate analysis of the no-project’s environmental impacts. Guidelines § 15126.6(e)(3)(B). In particular, CEQA requires that the no-project alternatives analysis discuss what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. Guidelines § 15126.6(e)(2). Here, the RDEIR fails to provide an accurate analysis because it is unrealistic to assume that sand and gravel mining could continue on an ongoing basis. Almost 25 years ago, the City determined that the extraction life of the aggregate mine was mostly depleted (See Exhibit F at 1 (City of Orange Resolution No. 8182)). Accordingly, it is simply nonsensical that two of the RDEIR’s alternatives call for a continuation of mining operations.

In addition, the RDEIR fails to provide an accurate analysis of the environmental impacts that would occur under these no-project alternatives. In several instances, the RDEIR incorrectly concludes that the no-project alternatives would result in fewer environmental impacts than the proposed Project when, in fact, the opposite is true. For example, the RDEIR finds that the no-project alternatives would result in fewer air quality and noise impacts than the proposed Project. See RDEIR at Table-5-9. Clearly, if sand and gravel operations were to resume at full capacity as the no-project alternatives call for, the quarry’s operations would likely be far more environmentally impactful than a 128-unit subdivision. Indeed, the City has long known that the sand and gravel operations on the Project site cause extensive environmental harm. See Exhibit F at 5 (City of Orange Resolution No. 8182, stating: “the site’s aggregate mining opportunities, if any, are limited by the residential development of the adjacent property to the north because noise and dust impacts associated with mining would have deterred such opportunities.”).


In its description of Alternative 1 (Development within the Existing Land Use Designations), the RDEIR states that a target of 77 homes would be developed on 15.4 acres north of Santiago Creek. RDEIR at 5-11. As discussed above, however, only 12.60
acres of the Project site are currently designated for residential uses, not 15.4 acres. Consequently, it is erroneous to assume that 77 homes could be developed under the existing land use designation. The EIR must be revised to calculate the number of units that could be built on 12.60 acres. This calculation must also take into account the site’s existing zoning and site constraints including creek setbacks and the Metropolitan Water District line that runs through and adjacent to the creek.

3. The RDEIR Fails to Evaluate a No-Project Alternative that Is Based on Current Plans.

As discussed above, CEQA requires that the no-project alternatives analysis discuss what would be reasonably expected to occur on a project site in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. Guidelines § 15126.6(e)(2) (emphasis added). In addition, when a project consists of “the revision of an existing land use or regulatory plan . . . the ‘no project’ alternative will be the continuation of the existing plan . . . into the future.” Guidelines § 15126.6(e)(3)(A).

Neither of the RDEIR’s “no-project” alternatives take into account existing plans, i.e., the OPA Plan or the East Orange Plan’s land use designations for the site. To properly analyze these alternatives, the RDEIR should have forecasted “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans.” Guidelines § 15126.6(e)(2). As discussed above, the City clearly anticipated that development proposals on the Project site were to be governed by the OPA Plan and the East Orange Plan. See Exhibit F at 4 (City of Orange Resolution No. 8182). Consequently, a continuation of the existing land use plans means the Project site would continue to be designated as “Santiago Greenbelt Plan” under the OPA Plan and “Regional Park” under the East Orange Plan. In other words, the current Resource Area uses could continue, but any future development would comply with the City’s determination of compatible uses as shown in the OPA Plan and East Orange Plan—that is, open space/park uses. The RDEIR incorrectly assumes that under “No Project: Alternative 1: Development within the Existing Land Use Designations,” Resource Area and Low Density Residential uses would occur on the Project site. RDEIR Page 5-2. This mistake must be corrected.

The RDEIR must be revised to reflect a legally correct no-project alternative. This alternative will inform decisionmakers and the public that under current land use plans, future uses on the Project site would be open space/park. Without a proper no-project alternative, the DEIR “fail[s] to meet the most important purpose of CEQA, to fully
inform the decision makers and the public of the environmental impacts of the choices before them.” Planning & Conservation League v. Department of Water Resources (2000) 83 Cal.App.4th 892, 920 (invalidating EIR because the no-project alternative improperly analyzed what would reasonably be expected to occur in the absence of the project).

4. The RDEIR Must Consider Other Feasible Alternatives Capable of Avoiding or Substantially Reducing the Project's Significant Environmental Impacts.

The DEIR identifies the “Collaborative Group” alternative, which consists of 47 lots and 47 dwelling units on approximately 40 acres, as the environmentally superior alternative because it achieves impact reductions in eight topic areas. RDEIR at 5-34. As an initial matter, the RDEIR does not provide an accurate representation of the “Collaborative Group” alternative. See RDEIR Exhibit 5-2. The correct version of this alternative is attached as Exhibit G. The RDEIR errs further when it rejects the “Collaborative Group” alternative, asserting summarily that it would not achieve project objectives and would not be financially feasible. RDEIR at 5-35. However, because the RDEIR provides no evidentiary support for these claims, its rejection of this alternative does not withstand scrutiny.

First, the RDEIR asserts that the “Collaborative Group” alternative would not advance the Project’s objectives. This claim is disingenuous, however, because the RDEIR does not actually evaluate the alternative against the Project’s objectives. Rather, the document invents a few new objectives and then asserts the Project would not be consistent with these new objectives. RDEIR at 5-35.

• New objective No.1: Transition of an infill site with a Specific Plan. As an initial matter, the meaning of this objective is unclear. Moreover, the RDEIR offers no explanation as to why the Collaborative Group alternative would be inconsistent with an objective calling for use of a Specific Plan to support development on the site. Certainly,

4 We can find no logical explanation as to why the RDEIR refers to this alternative as the Collaborative Group Alternative. There is no “Collaborative Group.” Rather, the name of the group that met with the City over the years in connection with this Project is the “City of Orange Sully Miller Liaison Committee” (Liaison Committee). To avoid confusion, the revised EIR must consistently refer to this group as the “Liaison Committee” and the alternative should be renamed to “Liaison Committee Alternative.”
a specific plan could be prepared to support the level of development contemplated by the “Collaborative Group” alternative.

- New objective No. 2: Develop a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists. This new objective is similar to the RDEIR’s Objective 6, but, unlike the original objective, it calls for an internal circulation system for motorists. RDEIR at 5-7. The RDEIR provides no reason why the Collaborative Group alternative could not be developed to have an internal transportation system. Moreover, the original Project objective calls for providing a circulation system that will minimize adverse effects on local residential neighborhoods and encourage pedestrian and bicycle circulation. Because the “Collaborative Group” alternative calls for considerably less development than the proposed Project, it would be more effective at reducing traffic impacts on local neighborhoods than the proposed Project. Consequently, the “Collaborative Group” alternative would be more consistent with the Project’s actual objectives than would the Project itself.

- New Objective No. 3: Would not permit the “Development Agreement Benefits” to the Community. RDEIR at 5-28. This objective is also not included in the RDEIR. However, certain of the Project objectives do call for improvements that are apparently included in the proposed Project, including the establishment of a greenway along the Santiago Creek corridor, developing a trail network, and improving circulation by widening Santiago Canyon Road and restriping Cannon Road. RDEIR at 5-7. The RDEIR explains that the “Collaborative Group” alternative would not permit any of these items (at 5-22), but it does not explain why. And it makes no sense that the “Collaborative Group” alternative would eliminate these improvements. Including a trail network and making improvements to the Santiago Creek corridor would increase the marketability of the Project and likely command higher home prices.

Finally, the RDEIR asserts that the “Collaborative Group” alternative is not financially feasible. Here too, the RDEIR provides no evidentiary support for this assertion. Moreover, if this alternative is already known to be infeasible, it is unclear why it was included in the EIR. Under CEQA, the City must identify feasible alternatives capable of attaining the Project’s objectives while avoiding or substantially lessening the Project’s significant impacts. Pub. Res. Code § 21100(b)(4); Guidelines § 15126(d) (EIR must describe a range of alternatives to a proposed project, and to its location, that would feasibly attain the project’s basic objectives while avoiding or substantially lessening the project’s significant impacts).
The RDEIR’s alternative analysis is further flawed because its remaining alternative—the 122-Unit alternative—results in impacts that are equivalent to the Project’s in virtually every impact area. Thus, rather than imparting serious information about potentially viable alternatives, the “Collaborative Group” alternative and the 122-Unit alternative serve only as “straw men” to provide justification for the Project. Such an approach violates CEQA, as it leaves the public and decisionmakers with no reasonable, less damaging option for development on the Project site.

To comply with CEQA, the EIR must identify feasible alternatives that actually reduce impacts caused by the proposed Project. One such alternative is the Liaison Committee Map alternative, the result of the City’s public outreach. A graphic depiction of this alternative is shown in the November 2, 2016 PDA (Exhibit H). The Liaison Committee Map alternative allows for less development than the proposed Project and would therefore be more effective than the proposed Project in achieving the Project’s objectives (e.g., locate homes in the most suitable areas of the site; preserve open space and greenway; preserve and protect Santiago Creek; and be compatible with neighboring residential uses). It would also be environmentally superior to the proposed Project since less development and more open space would result in reduced environmental impacts.

Under CEQA, an agency may not approve a proposed project if a feasible alternative exists that would meet a project’s objectives and would diminish or avoid its significant environmental impacts. Pub. Res. Code § 21002; Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692, 731; see also Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); Citizens for Quality Growth v. City of Mount Shasta (1988) 198 Cal.App.3d 433, 443-45. An alternative need not meet every Project objective or be the least costly in order to be feasible. See Guidelines § 15126.6(b). The “Collaborative Group” and Liaison Committee Map alternatives are feasible and would substantially reduce the Project’s environmental impacts. Consequently, approval of the Project, or any alternative project with greater impacts than these alternatives would violate CEQA.

D. The RDEIR Must Be Recirculated.

Under California law, the present EIR cannot properly form the basis of a final EIR. CEQA and the Guidelines describe the circumstances that require recirculation of a draft EIR. Such circumstances include: (1) the addition of significant new information to the EIR after public notice is given of the availability of the RDEIR but before certification, or (2) the draft EIR is so “fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.” Guidelines § 15088.5.
Here, both circumstances apply. Decisionmakers and the public cannot possibly assess the Project’s impacts or even its feasibility through the present RDEIR, which is riddled with errors. As we have explained, the RDEIR omits certain information and provides inconsistent information about prior remediation efforts on the Project site and the nature of earthwork that would be needed to prepare the site for development. Without additional information, it is not possible to evaluate the Project’s impacts relating to: hydrology, hazards, public health and safety, transportation, air quality, noise, and climate change. Nor is it possible to evaluate the feasibility of the Project’s alternatives. The revised EIR must provide the following information and then be recirculated for public review and comment:

1. In March 2011, the City granted Grading Permit No. 2047 to allow previously mined portions of the Project site to be backfilled. RDEIR at 2-2; RDEIR Appendix P at 5. The RDEIR fails to disclose the amount of backfilling that has already occurred pursuant to this Permit. What is the precise amount of import and export that has taken place on the Project site since 2011, the year that Permit No. 2047 was issued? Clearly, this information is available as RDEIR Appendix P states that “the Project site was backfilled in sequentially defined phases.” RDEIR Appendix P at 4.

2. The RDEIR states that since 2015, backfilling operations have been limited to 15 consecutive business days in any 6-month period. RDEIR at ES-8. Precisely, how many cubic yards of soils have been removed since this limitation began in 2015?

3. The RDEIR states that “During grading, the project is expected to require the import of approximately 877,000 cubic yards of new material and the removal of approximately 500,000 cubic yards of silt.” RDEIR at 3.3-34. The RDEIR’s Appendix I, however, states that “Approximately 2,248,200 cubic yards of material will be over excavated. This includes all materials required to restore the project site. Once removed, the material will be spread and dried on the project site. The material will then be mixed with imported materials. A total of 1,100,000 cubic yards of material will be imported to the site. The imported materials include concrete, asphalt, rock, and soil. The imported materials will be crushed on-site. A total of 3,348,200 cubic yards of material, both over excavated and imported to the project site, will be blended during the backfilling operation.” RDEIR Appendix I at (pdf page 9) The RDEIR must reconcile the import/export figures presented in the RDEIR with those identified in RDEIR Appendix I.

4. RDEIR Appendix I (at pdf page 9) states that the “project site is presently being backfilled in accordance with the specific backfill description provided by the EIR
consultant.” Is the backfill operation identified in Appendix I a component of the proposed Project or is it separate and distinct from the Project?

5. As reflected in the Rio Santiago EIR, under the 2011 plan, grading and backfilling activities would have lasted 52 months (1,129 days). The RDEIR indicates that grading and backfilling activities will last only 18 months (391 days). Since the grading equipment identified in connection with the two plans is essentially the same, this suggests that the silt pond excavation, spreading, and mixing activity that formed the core of the 2011 plan has been eliminated. Has the silt pond excavation, spreading, and mixing activity that formed the core of the 2011 plan been eliminated from the current project? If so, why?

6. Why does the RDEIR rely on grading and earthwork technical appendices prepared in connection with the Rio Santiago Project? The Rio Santiago Project, contemplated in 2013, proposed entirely different land uses than the current Trails at Santiago Creek Project.

7. The RDEIR’s transportation impact analysis relies on a “trip credit” for permitted sand and gravel operations for purposes of identifying the Project’s trip generation. RDEIR at 3.16-20. The document explains that this trip credit was calculated based on traffic counts conducted during normal operations in October/November 2010. RDEIR at 3.16-20. The trip credit was determined to be: 686 daily trips, with 63 trips (34 inbound, 29 outbound) produced in the AM peak-hour and 32 trips (15 inbound, 17 outbound) produced in the PM peak-hour. RDEIR at 3.16-21. The RDEIR states that the peak of the site’s backfilling operations occurred in 2011. RDEIR at 3.16-21. Why did the RDEIR rely on trip counts from 2010 to arrive at the “trip credit” amount if the site’s peak traffic occurred in 2011? What was the daily, AM, and PM peak hour truck and employee vehicle counts in 2010? What was the daily, AM, and PM peak hour truck and employee vehicle counts in 2011?

8. According to RDEIR Appendix P, materials recycling will continue on the Project site through the construction of the proposed Project until Planning Area D is developed. RDEIR Appendix P at 4. The RDEIR’s trip generation estimates do not appear to take into account trips associated with these materials recycling operations. How many truck and employee trips are associated with materials recycling within Planning Area D?
9. According to the RDEIR Table of Contents, Appendix L: Land Use Background should have been included in the RDEIR. This appendix is missing. The revised EIR must include the Land Use Background appendix.

II. APPROVAL OF THE PROJECT WOULD VIOLATE THE CALIFORNIA PLANNING AND ZONING LAW.

The State Planning and Zoning Law require that development decisions be consistent with the jurisdiction’s general plan. As reiterated by the courts, “[u]nder state law, the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements.” Resource Defense Fund v. County of Santa Cruz (1982) 133 Cal.App.3d 800, 806. Accordingly, “[t]he consistency doctrine [is] the linchpin of California’s land use and development laws; it is the principle which infuses the concept of planned growth with the force of law.” Families Unafraid to Uphold Rural El Dorado County v. Bd. of Supervisors (1998) 62 Cal.App.4th 1332, 1336 (citations and internal quotations omitted).

General plans establish long-term goals and policies to guide future land use decisions, thus acting as a “constitution” for future development. Lesher Communications, Inc. v. City of Walnut Creek (1990) 52 Cal.3d 531, 540. The policies in the General Plan must be internally consistent. Gov. Code § 65300.5. To promote coordinated land use policies and practices, state law requires local governments not only to formulate land use plans, but also to conform their development and land use projects and approvals with those duly certified plans. Citizens of Goleta Valley v. Bd. of Supervisors (1990) 52 Cal.3d 553, 570; see also Gov. Code § 65860 (requiring consistency of zoning to general plan); id. §§ 65359 & 65454 (requiring consistency of specific plan and other development plan and amendments thereto to general plan); id. § 65867.5(b) (requiring consistency of development agreement to general plan).

It is an abuse of discretion to approve a project that “frustrate[s] the General Plan’s goals and policies.” Napa Citizens for Honest Government v. Napa County Board of Supervisors (2001), 91 Cal.App.4th at 357. The project need not present an “outright conflict” with a general plan provision to be considered inconsistent; the determining question is instead whether the project “is compatible with and will not frustrate the General Plan’s goals and policies.” Id. at 379.

Here, for the reasons described above, the proposed Project is inconsistent with the City’s General Plan. Because of these inconsistencies, approval of this Project would violate the State Planning and Zoning Law.
III. CONCLUSION.

As set forth above, the Trails at Santiago Creek RDEIR suffers from numerous deficiencies, many of which would independently render it inadequate under CEQA. Taken as a whole, the deficiencies of the RDEIR necessitate extensive revision of the document and recirculation for public comment. Moreover, as currently designed, the Project conflicts with the City of Orange General Plan, the OPA and East Orange Plans, and the City’s Tree Preservation Ordinance. OPA respectfully requests that the City reevaluate the Project in light of its inconsistencies with these plans and ordinances and make changes to the Project to reduce its serious environmental impacts.

Very truly yours,
SHUTE, MIHALY & WEINBERGER LLP

Laurel L. Impett, AICP,
Urban Planner

cc: Donald Bradley, Orange Park Acres

List of Exhibits:

Exhibit B: OPA Specific Plan policies.
Exhibit E: SANDAG’s RTP/SCS DEIR, GHG Chapter.
Exhibit F: City of Orange Resolution No. 8182, May 18, 1993.
Exhibit G: “Collaborative Group” alternative, Corrected.
Exhibit H: Preliminary Development Agreement, November 2, 2016.
Shute, Mihaly & Weinberger LLP (SMW)

Response to SMW-1
The comment provides introductory remarks generally reciting CEQA requirements, and stating generally that the EIR fails to comply with CEQA’s core purpose. The City in its independent judgment has reviewed the information in the EIR and concludes that the analysis is thorough and meets CEQA requirements.

Response to SMW-2
The comment asserts generally that the project description is inadequate and that the EIR does not analyze significant impacts or provide adequate mitigation. Specifically, the commenter argues that the EIR fails to provide a legally adequate project description, analyze significant environmental impacts of the project, and undertake a legally sufficient study of alternatives. Please refer to Master Response 2 for a response regarding the adequacy of the project description and Master Response 3 regarding the adequacy of the range and analysis of project alternatives. The Trails at Santiago Creek Specific Plan was made available for review during the time the RDEIR was circulated and the RDEIR included a complete and legally adequate description of the Specific Plan. All details on the project have been provided to the public as part of the RDEIR. In response to the commenter’s general assertion that the EIR fails to properly analyze significant environmental impacts of the project, please see responses to this letter below, which discuss specific environmental issue areas raised by this letter.

Response to SMW-3
The comment asserts that the project is inconsistent with the City’s General Plan and Orange Park Acres Plan. The City disagrees with this comment, for the reasons stated in Master Response 5—Plan Consistency. The proposed project is consistent with the City’s General Plan and the Orange Park Acres Plan, and furthers the goals of those plans.

Response to SMW-4
The comment asserts that the project description is inadequate and contains insufficient detail. Please refer to Master Response 6—Adequacy of the Project Description. The Trails at Santiago Creek Specific Plan was made available to the public during the time the RDEIR was circulated. The RDEIR provided all necessary details on the project to the public.

Response to SMW-5
Please refer to Master Response 2—Applicability of SMARA.

The commenter argues that the project description lacks fundamental information about the project because it does not require a reclamation plan to be prepared for the site’s aggregate mining operations. As discussed in RDEIR Section 3.11, Mineral Resources, page 3.11-3, operators of surface mining operations are required to obtain a permit for operations post-1976 under SMARA, and are required to file a mining reclamation plan for post-1975 mining operations. The project does not involve aggregate mining operations. In fact, the mined areas of the site have been backfilled, which effectively precludes the resumption of surface mining operations. The Geotechnical Investigation prepared for the project concluded that aggregate mining operations on the project site would not be economically feasible and the resource is effectively depleted. As such, there is no basis for the project to prepare a reclamation plan. Contrary to the commenter’s assertion, backfilling on-site has been suspended since September 15, 2015. Addressing the scope of backfilling is therefore not
necessary because it is not part of the project. The status of previous backfilling that already occurred on the site is not necessary because the baseline for CEQA analysis is existing conditions. (See, e.g., Communities for a Better Env’t v South Coast Air Quality Mgmt. Dist. (2010) 48 C4th 310.)

Response to SMW-6
Please refer to Master Response 2—Applicability of SMARA and Master Response 9—Soils Import/Export Numbers. Regarding the accuracy of the required import and export of soils, and the relationship between the Project Description and the Geotechnical Investigation contained in Appendix I, the Project Description provides accurate numbers for the amount of import and export required by the project. The information provided in Appendix I relates to the larger Rio Santiago Specific Plan analysis, as the commenter points out. The purpose of including this information from the Rio Santiago Specific Plan project is not to identify contradictory cut and fill numbers, but to provide additional support for the characterization of subsurface soils and the likely methods of construction required. Contrary to the assertions of the commenter, the RDEIR did not rely on grading details prepared for an entirely different project.

Response to SMW-7
The comment asserts that it is unclear in the project description what actions must occur to ensure that the site can be made safe for human occupation. The comment states concern that potential impacts from vapor intrusion of TCE, methane, and elevated levels of TPH in soil were not identified in the project description. Please refer to Master Response 8—Site Environmental Conditions for a discussion of potential impacts from vapor intrusion of TCE, methane, and elevated levels of TPH.

As an initial matter, project descriptions must include integral components of the project, but should not provide extensive detail beyond that needed for evaluating environmental impacts (Santiago County Water Dist. v County of Orange (1981) 118 CA3d 818, 829; CEQA Guidelines Section 15124). The commenter’s suggestion that hazardous materials impacts should be addressed in the project description is misplaced. Hazardous materials impacts, analyses, and mitigation measures are addressed in RDEIR Section 3.8, Hazards and Hazardous Materials, based on the fundamental components of the project identified in the Project Description, which is adequate under CEQA.

RDEIR Section 3.8, Hazards and Hazardous Materials, discloses the presence of contaminants and the need for remediation and/or off-haul to ensure that the site is appropriate for residential re-use.

As discussed in Section 3.8, Hazards and Hazardous Materials, three Phase I or Phase II ESAs were prepared for the project site in 2000, 2009, and 2011. As noted in the comment letter, the Phase II ESA conducted in 2011 concluded that there were two potential hazards to future occupants and users of the site: (1) potential vapor intrusion of TCE and methane into future dwelling units and (2) elevated petroleum hydrocarbon concentrations in soil. The Phase II ESA determined that the hazards identified in the 2000 and 2009 Phase I ESAs, including asbestos, no longer exist. The project incorporates several mitigation measures to ensure that hazardous materials do not affect human health or the environment. As the commenter mentions, the proposed enclosed structures will be situated strategically to allow for future remediation, which will be implemented through design plans and structural systems to prevent gas-related hazards. Structural systems will be approved by the County of Orange Health Care Agency/Local Enforcement Agency. The mitigation measures
identified are technically adequate under CEQA, which allows mitigation measures to specify performance standards that will be met following project approval when it is impractical to devise specific measures during the planning process so long as further action (i.e., a building permit) is contingent on meeting those performance standards. (*Sacramento Old City Ass’n v City Council* (1991) 229 CA3d 1011.) Pursuant to this standard, the mitigation measures identified in the hazardous materials section are adequate under CEQA because they contain performance standards that will be verified by the City and/or an agency.

The commenter argues that groundwater and methane monitoring wells exist on the project site, but the RDEIR fails to describe whether the wells pose constraints on the project development. Contrary to the commenters’ assertion, Mitigation Measure HAZ-2c requires that prior to commencement of any construction activities, the Applicant must obtain approval from Orange County Integrated Waste Management Department for the relocation of any monitoring wells or probes that would be affected by the project development.

Contrary to the commenter’s assertion, the disclosure of potential hazardous materials impacts and mitigation measures are not buried in the technical appendices but are presented plainly in Section 3.8, Hazards and Hazardous Materials, of the RDEIR.

The DTSC, in their comment letter dated December 27, 2018, provided suggested refinements to Mitigation Measures HAZ-2a and HAZ-2b that clarify and confirm the actions required to meet specific DTSC regulatory performance measures. The inclusion of more specificity in the performance measures for the remediation of hazardous conditions will ensure that the site is remediated to levels appropriate for residential use. The refinements recommended by DTSC are shown in Section 4, Errata. Please also see the response to DTSC-4. The refinements to required performance standards are intended to clarify and amplify Mitigation Measures HAZ-2a and HAZ-2b and do not constitute significant new information or new or considerably different mitigation measures pursuant to CEQA Guidelines Section 15088.5.

*Response to SMW-8*
Please refer to Master Response 4—Dam Failure and Liability.

*Response to SMW-9*
Please refer to Master Response 5—Wildfire Risk.

*Response to SMW-10*
The comment states an opinion that the RDEIR inappropriately defers studies and plans for Santiago Creek’s restoration until after project approval.

As noted in the Project Description, studies of Santiago Creek will be conducted and plans will be prepared and submitted to the City and/or other jurisdictional agencies for review and approval for the enhancement, restoration, and re-establishment of the plant community habitats on the land on the north side of Santiago Creek, within the Santiago Creek corridor and within the grassland areas in the southeast portion of the Specific Plan area. As part of the project, a conservancy, OC Parks, the HOA, a non-profit, or another similar entity will be responsible for caring for and maintaining open space grasslands and trails. Please refer to Master Response 6—Stewardship of Open Space for more detail.
Contrary to the commenter’s arguments, an analysis of responsibility for maintenance of the open space grasslands and trails is not improperly deferred. As part of the project, either a conservancy, OC Parks, the HOA, a non-profit, or another similar entity will be responsible for maintaining the open space grasslands and trails. The project Applicant will enter into an agreement with a conservancy, the HOA, non-profit, public agency, or similar entity, prior to approval of the Tentative Map for the project, to ensure that responsibility for construction of improvements and maintenance is adequately addressed. The agreement will include a funding mechanism to ensure adequate funding of open space improvements and subsequent maintenance. There are no studies or future mitigation measures required to analyze environmental impacts associated with maintenance of the open space or trail area. The RDEIR did not identify any impacts associated with maintenance nor did the RDEIR identify mitigation measures that are required to address potential impacts associated with maintenance. Moreover, it is unnecessary to conduct any additional analysis of Santiago Creek’s ultimate alignment, width, depth, etc., as suggested by the commenter, because after a thorough analysis of potential creek impacts, the project was found not to result in any impacts to Santiago Creek with implementation of mitigation. Likewise, it is unnecessary to conduct a cost analysis of restoration of Santiago Creek.

Response to SMW-11

The comment states an opinion that the RDEIR fails to provide a viable plan for the management and maintenance of the project’s open space lands and trails, including the Santiago Creek corridor. The commenter opines that it is not known whether OC Parks agrees with the design, phasing, or costs of the necessary improvements.

As part of the project, either a conservancy, OC Parks, the HOA, a non-profit, or another similar entity will be responsible for maintaining the open space grasslands and trails. The project Applicant will enter into an agreement with a conservancy, the HOA, a non-profit, public agency, or similar entity, prior to approval of the Tentative Map for the project, to ensure that responsibility for construction of improvements and maintenance is adequately addressed. The agreement will include a funding mechanism to ensure adequate funding of open space improvements and subsequent maintenance. The agency or entity responsible for maintenance will ensure that habitat will be properly managed for the public benefit. Please refer to Master Response 6—Stewardship of Open Space for more detail.

Based on the project’s design features, including maintenance by a conservancy, OC Parks, the HOA, or another entity, the RDEIR did not identify any potential impacts related to maintenance of the project’s open space lands and trails. As such, mitigation is not required.

The commenter argues that the DEIR did not include necessary information related to the design, phasing, timing, and financing of project infrastructure in the project description. The Project Description describes the utilities required for the project beginning in RDEIR Section 2, Project Description, page 2-62, including storm drainage, potable water, wastewater, electricity, and natural gas. See Master Response 2—Adequacy of the Project Description, Level of Detail. As discussed in Master Response 2—Adequacy of Project Description, project descriptions should not provide extensive detail beyond that needed for evaluating environmental impacts (Santiago County Water District v County of Orange (1981) 118 CA3d 818, 829; CEQA Guidelines Section 15124). The CEQA Guidelines provide that the level of detail in an EIR project description should be “general.” The leading court decision on the level of detail in EIR project descriptions stated that a “general
"description" is all that is required. *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 28. The level of detail in the project description related to project infrastructure is sufficient to analyze the environmental impacts of the project. A detailed engineering design-level drawing of storm drainage facilities is not required to analyze stormwater or flooding impacts, for example. RDEIR Section 3.18, Utilities, addresses Utilities and Service Systems in detail to reach the conclusion that impacts are less than significant. The level of detail presented in Section 3.18 is not required to be included in the project description by the CEQA Guidelines or case law.

**Response to SMW-12**
Please refer to Master Response 2—Adequacy of the Project Description.

**Response to SMW-13**
The commenter opines generally that the Project Description is cursory and that analysis of impacts and mitigation measures accordingly is deferred. Based on the City’s independent review, the City concludes that the RDEIR Project Description provides a detailed and sufficient basis for the environmental analysis in the RDEIR. The Trails at Santiago Creek Specific Plan was made available for review as RDEIR Appendix Q, all details on the project have been provided to the public.

Please refer to Master Response 2—Adequacy of the Project Description.

Please also refer to responses SMW-1 through SMW-12 for more specific responses to the specific issues raised in those comments and generally referenced in SMW-13.

**Response to SMW-14**
Please refer to Master Response 1—Plan Consistency.

**Response to SMW-15**
Please refer to Master Response 1—Plan Consistency.

**Response to SMW-16**
Please refer to Master Response 1—Plan Consistency.

**Response to SMW-17**
Please refer to Master Response 1—Plan Consistency.

**Response to SMW-18**
The comment alleges that the RDEIR incorrectly identifies General Plan land use designation acreages for the project site.

The RDEIR correctly discloses that approximately 37 acres of the project site are designated “Regional Park” in the East Orange General Plan. Similarly, the RDEIR correctly identifies that approximately 39 acres of the project site are listed as “Open Space” in the Orange Park Acres Plan; however, it is acknowledged that Orange Park Acres Association considers the Orange Park Acres area to be 56.74 acres.
Response to SMW-19
The comment alleges that the project is inconsistent with the Orange Park Acres and the East Orange Plans. It also alleges that acreages are incorrectly identified in the RDEIR.

Please refer to Master Response 1—Plan Consistency. See also response to SMW-18.

Response to SMW-20
Please refer to Master Response 1—Plan Consistency.

Response to SMW-21
Please refer to Master Response 1—Plan Consistency.

Response to SMW-22
The comment states a general opinion that the RDEIR’s evaluation of hydrology and water quality impacts is flawed. As explained in responses SMW-23 through SMW-26, this comment is incorrect.

Response to SMW-23
The comment notes that the project site is located in the Santiago Creek Watershed, which is listed as an impaired water body on the Regional Board’s 303(d) List, and generally states that the RDEIR should provide a comprehensive analysis of potential impacts to water quality.

RDEIR Section 3.9, Hydrology and Water Quality, discusses surface water quality. As discussed, the project would result in an increase in the amount of impervious surfaces on the project site and would create potential for discharge of urban pollutants into downstream waterways. However, Mitigation Measure HYD-1b would be required, which would mandate a Water Quality Management Plan (WQMP) to be prepared and submitted to the City of Orange for review and approval. The WQMP is included as Appendix K to the RDEIR, which is referenced in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-20. As part of the WQMP, the project would be required to comply with pollution prevention measures and practices that comply with the most recently adopted provision of the Orange County Municipal Separate Storm Sewer Program (MS4). In addition, the WQMP proposes proprietary biotreatment BMPs that have high removal rates of typical pollutants found in stormwater. With implementation of mitigation, operational water quality impacts would be less than significant and the project would not substantially degrade water quality.

Related to construction impacts, Mitigation Measure HYD-1a would be required, which would mandate a Stormwater Pollution Prevention Plan (SWPPP) to be prepared to prevent construction related impacts to water quality. The SWPPP will be written and approved by both the City and RWQCB prior to issuance of grading permits. BMPs will be implemented in accordance with the SWPPP to retain sediment and pollutants on-site. Contaminated sediment identified would be retained on-site will be treated as hazardous and handled/disposed of appropriately. With implementation of mitigation, temporary stormwater impacts would be less than significant and the project would not substantially degrade water quality during construction.

Response to SMW-24
The commenter states an opinion that the RDEIR fails to evaluate the effect that contaminated discharge could have on water quality during construction. The comment also states an opinion that
the Hydrology and Water Quality Reports in RDEIR Appendix K fail to explain how BMPs would protect water quality given that contaminated soils occur on-site.

Mitigation Measure HYD-1a, which is required in the RDEIR, requires a SWPPP to be prepared for project construction activities. The SWPPP must identify BMPs to reduce any potential impacts to water quality. Mitigation Measure HYD-1a specifically requires sediment to be retained on-site by a system of sediment basins, traps, or other BMPs. In addition, the mitigation measure requires the construction contractor to prepare Standard Operating Procedures for handling hazardous materials on the construction site to eliminate potential discharge of hazardous materials to the storm drain system. Mitigation Measure HYD-1a would ensure that any contaminated soil is contained on-site and does not discharge to storm drains. Contrary to the commenter’s assertion, the RDEIR adequately addresses the presence of contaminated soil and includes mitigation to ensure that contaminated soil is not discharged from the site during construction.

Response to SMW-25
Please refer to Master Response 2—Applicability of SMARA.

Response to SMW-26
The commenter states an opinion that operation of the project would create the potential for discharge of urban pollutants into downstream waterways. The commenter argues that the RDEIR does not properly describe the “first flush concept” because it is described in the appendices. The commenter states opposition to Mitigation Measure HYD-1b, which requires BMPs to be implemented by a WQMP.

Contrary to the commenter’s assertions, the WQMP for the project requires BMPs necessary to control stormwater pollution from operational activities and facilities. The WQMP would be required to be reviewed and approved by the City prior to issuance of building permits. As noted in the WQMP for the project, Section 7.11-2.4.3 states, “Priority Projects must infiltrate, harvest and use, evaporate transpire, or biotreat/biofilter, the 85th percentile, 24-hour storm event (Design Capture Volume),” which may be commonly referred to as the “first flush.” Appendix K details how BMPs are designed to treat this amount of flow/volume generated from the project area; however, the body of the RDEIR references the “first flush” and Mitigation Measure HYD-1b requires the WQMP to include design concepts and BMPs intended to address the “first flush,” which will be reviewed and approved by the City prior to issuance of building permits to ensure compliance.

In addition, an Operations and Maintenance Agreement described in Section V of the WQMP in Appendix K of the RDEIR, has been submitted to the City. Section V of the WQMP designates the owner of the project as the responsible party for maintaining the listed BMPs in the Operation and Maintenance Agreement. In the event that ownership is to be transferred to an HOA, a formal notice of transfer shall be submitted to the City in a WQMP amendment, which is consistent with Mitigation Measure HYD-1b identified in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-21, requiring BMPs in the WQMP to be reviewed and approved by the City prior to issuance of building permits. Contrary to the commenter’s assertions, Appendix K is not vague or incomplete. Moreover, the details of the BMPs required in the WQMP will be refined and reviewed and approved by the City at the building permit stage.
Until the HOA is formed, the Applicant, Milan Capital Management, will be responsible for the inspection and maintenance of BMPs. As stated in Appendix K, “A Home Owners Association (HOA) will be formed upon project completion. The HOA will be responsible for inspecting and maintaining all BMPs prescribed for the Trails at Santiago Creek. Until an HOA is formally established, Milan Capital Management shall assume all BMP maintenance and inspection responsibilities for the proposed project. Inspection and maintenance responsibilities are outlined in Section V of this report.”

Response to SMW-27
The commenter states an opinion that runoff from the project site during operation has the potential to create flooding conditions.

The project contains within its boundaries both FEMA “Zone AE” and FEMA “Zone X” areas. The FEMA definition of Zone AE is a “Special Flood Hazard Area Subject to Inundation by the 1% Annual Chance Flood.” This 1 percent Annual Chance Storm is known as the 100-year storm. The FEMA definition of Zone X is “Other Flood Areas” which include “areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1% annual chance flood.” The 0.2 percent annual chance storm is known as the 500-year storm.

The 100-year flood hazard areas on the project site overlap with the Santiago Creek channel. However, the project would establish a greenway along the creek corridor and would not alter the existing 100-year flood hazard area. The areas mapped as 500-year flood hazard areas primarily coincide with areas proposed for open space and recreation. Approximately 15 acres of the residential portion of the project is on areas mapped as 500-year flood hazard areas; however, applicable federal regulations permit residential uses in the 500-year flood elevation. The residential uses would be raised above the flood elevation of Zone X.

The project would reduce the size of the ground surface area that is a tributary to Handy Creek, as shown in the Preliminary Hydrology Report in Appendix K. The 100-year flood flow is contained within the bed and banks of the existing creek.

The Proposed Condition Hydrology Map shows the sub areas east of Handy Creek are rearranged to bypass Handy Creek and drain further to the west to sub area B6. The location of the proposed condition in sub area labeled C8 lies over Handy Creek and measures 1.46 acres. Sub area C8 is a tributary to Node 131, which is an inlet to Handy Creek. This rearrangement of sub areas reduces the size of the ground surface area that is tributary to Handy Creek from 61.9 acres to 1.46 acres. This calculation demonstrates that the conveyance capacity constraint of Handy Creek under the proposed project condition, which would be reduced to less than significant level based on the Preliminary Hydrology Report. Table 3.9-7 shows the existing and proposed discharge rates at Handy Creek. As shown in the table, the existing 100-year runoff is 180.05 cfs and the proposed runoff is 82.72 cfs, for a reduction of 54.1 percent. As indicated in the table, the project will actually decrease runoff due to the proposed detention basin, contrary to the statement of the commenter.

The commenter states an opinion that the existing hydrologic constraints are responsible for the project’s potential to impact the downstream properties. However, contrary to the commenter’s
opinion, the existing site hydrologic situation is well known and well documented. The project has been designed to adapt to site constraints in such a way as not to exceed them. As concluded in the Preliminary Hydrology Report for the project, and as reported in RDEIR Section 3.9, Hydrology and Water Quality, the project would not result in downstream flooding.

Response to SMW-28
The commenter claims the RDEIR does not provide explanation as to how discharge rates were calculated.

The Preliminary Hydrology and Hydraulics Report in Appendix K, and referenced throughout RDEIR Section 3.9, Hydrology and Water Quality, includes detailed methodology of the analysis of stormwater discharges during the 2-year event and 100-year event that were analyzed to assess impacts for hydromodification (2-year) and flood control (100-year). As described in Appendix K, the “study was prepared in conformance with the Orange County Hydrology Manual. The project site 100-year event Inflow Hydrographs were calculated for the pre and post development conditions using the small area hydrograph method. These hydrographs were routed through the detention basin for design of the detention facilities. A.E.S. Computer Software was utilized to compile the hydrologic data and to determine the peak discharges and hydrographs.” This methodology is summarized in the RDEIR under Impact HYD-3.

The proposed discharge rates compared to existing discharge rates are described in RDEIR Section 3.9, Hydrology and Water Quality, Table 3.9-6, Existing and Proposed Discharge Rates—Proposed Storm Drainage System. The values presented in this table were extracted verbatim from Appendix K.1, Preliminary Hydrology and Hydraulic Report, pages 6 and 7, which contain the source values. Further, the Report presents a complete description of how all the values were calculated, including assumptions and analytical methodology. The combination of the summary presented in Table 3.9-6 and the detailed report in Appendix K.1 is technically adequate for use by the public and decision makers to ascertain the potential impacts related to flooding.

Response to SMW-29
The commenter states an opinion that achieving no net increase in discharge is not sufficient to ensure downstream properties will not be affected by flooding.

As determined in the Preliminary Hydrology and Hydraulic Report in Appendix K of the RDEIR, the project will not cause any changes in runoff as compared to existing conditions and the project will not cause any impacts on downstream properties. See Response to SMW-27 above. As the project would implement features that would mimic existing conditions runoff, the proposed project will not alter or exacerbate downstream flooding impacts and project impacts would be less than significant.

Response to SMW-30
The comment suggests that the project comply with large municipal sewer system requirements.

The project is a part of the City of Orange MS4, which is considered a large MS4. Therefore, the updated RDEIR correctly references the City of Orange MS4 jurisdiction. As the project is considered a Priority Project as defined in the Model WQMP, and has prepared a WQMP highlighting proposed
BMPs associated with the project, the project is in compliance with the NPDES permitting requirements for the City’s MS4 regulations.

Response to SMW-31
The comment states an opinion that the RDEIR fails to explain how the project would comply with MS4 regulations.

All BMPs to satisfy MS4 requirements, including detention and water quality BMPs, are included in the project’s WQMP in Appendix K and the process to comply with the MS4 Permit is also summarized under Impact HYD-1 of the RDEIR. Mitigation Measure HYD-1b requires the project to comply with the Regional MS4 Permit and City of Orange WQMP requirements, including the use of low impact development features to infiltrate, filter, store, evaporate, or retain runoff. For areas where infiltration is not recommended or accepted, biofiltration features would be incorporated to treat runoff and control effluent flows. Contrary to the commenter’s opinion, the project would be required to comply with MS4 regulations.

Response to SMW-32
Please refer to Master Response 8—Site Environmental Conditions and Master Response 7—Applicability of SMARA (based on last paragraph of Comment SMW-32).

Response to SMW-33
The commenter alleges generally that numerous sensitive wildlife species have been observed or have the potential to occur on the site but the RDEIR fails to conduct focused surveys for such species.

The general comment that the RDEIR does not address “numerous wildlife species,” is not specific regarding the species of which the commenter is concerned. The RDEIR addressed potential impacts to all species that were identified to have the potential to occur on-site and concluded that with mitigation, impacts are less than significant. Because of the general nature of the comment, no additional specific substantiation of analyses or impacts identified in the RDEIR can be provided.

Response to SMW-34
As stated in RDEIR Section 3.4, Biological Resources, subsection 3.4.2, page 3.4-15, focused protocol surveys for the arroyo toad were conducted by Michael Brandman Associates (MBA) in 2008 and PCR in 2010, during which no arroyo toads were found on-site. The 2010 protocol survey methodology, data, and results are included in RDEIR Appendix G. Focused surveys were not repeated beyond 2010 due to the lack of suitable habitat for this species on-site, a determination that was based on the expert opinion of a qualified biologist experienced in habitat assessments and in conducting focused surveys for this species. Due to the lack of suitable habitat and due to the negative results of focused surveys that were conducted in 2008 and 2010, this species is not expected to occur within the project site. Additionally, there have been no new records of this species within Orange County subsequent to the 2010 report, indicating that no new information has been available to suggest that updated studies are needed, and it does not change the analysis of the proposed project on this species.
Response to SMW-35

The commenter states an opinion that the RDEIR incorrectly failed to conduct focused surveys for the yellow-breasted chat and failed to provide enforceable mitigation for the southern cottonwood riparian forest.

Yellow-breasted chat is a California Species of Special Concern, and there is no survey protocol for this species published by either the United States Fish and Wildlife Service (USFWS) or CDFW. This species was identified as a species observed on-site during the numerous surveys conducted over multiple years on the project site, as mentioned in RDEIR Section 3.4, Biological Resources, subsection 3.4.2, page 3.4-15. Effects of the proposed project on special-status species such as yellow-breasted chat are included in RDEIR Section 3.4, Biological Resources, subsection 3.4.6, page 3.4-38, which states: “The majority of the suitable habitat (e.g., southern cottonwood willow riparian forest, coastal sage scrub, and other native habitats) within Santiago Creek and northern portion of the project site which has potential to support special-status species will be avoided, and the availability of contiguous habitat within the project site will continue to provide resources and foraging habitat for these species, if present. Thus, the loss of individuals as a result of the proposed project would not be expected to reduce regional population numbers. Therefore, impacts to these sensitive wildlife species are considered adverse but less than significant and no mitigation measures would be required.” Mitigation Measure BIO-3 would mitigate any potential impacts to the southern cottonwood riparian forest by requiring the Applicant to demonstrate restoration or enhancement of sensitive riparian communities at a ratio of 1:1 for permanent impacts. Consistent with the commenter’s suggestion that the project mitigate permanent and temporary impacts, Mitigation Measure BIO-3 requires temporary impacts to be restored to pre-project conditions.

Response to SMW-36

The commenter states an opinion that the temporary impacts to CDFW jurisdictional streambed and riparian habitats are not properly identified as less than significant.

All temporary impacts to riparian habitat are required by RDEIR Mitigation Measure BIO-3 to be restored to pre-project conditions following construction. As those pre-project conditions consist of native species, naturally native species must be used for the restoration. The RDEIR characterizes impacts as temporary and permanent to identify the nature of the impact, analyze it accordingly, and determine appropriate mitigation to offset the impact. Temporary impacts will be restored to pre-project conditions, which are the conditions that exist prior to implementation of the project, including pre-project contours and vegetation. As suggested by the commenter, Mitigation Measure BIO-3 requires replacement with native vegetation. Additionally, the regulatory agencies, CDFW and USACE, require their permits to include both temporary and permanent impacts with corresponding appropriate mitigation that mandate the planting of native species.

Response to SMW-37

The commenter requests that all vegetation in the setback area be native.

The proposed “setback area” involves planting a landscaping and fuel modification area where there is currently little to no vegetation due to the previous backfill and stockpiling operations (which are not a part of the proposed project) that had been ongoing for years and caused the currently
disturbed, denuded conditions on-site. The planting of native and non-native vegetation would ostensibly improve the existing conditions of the project site by creating more habitat for native plants and wildlife. Native plants will be incorporated into the plant palette, and although appropriate non-native landscaping species may also occur within this area, the proposed project will not use plants identified as invasive exotic species by California Invasive Plant Council (Cal-IPC) Invasive Plant Inventory within the landscape plan.

The setback area is intended to provide a vegetative buffer from the southern cottonwood-willow riparian forest within Santiago Creek, which provides habitat for the least Bell’s vireo. It is not intended to provide habitat for the least Bell’s vireo itself. Therefore, contrary to the commenter’s assertion, it is not required to contain native vegetation exclusively.

Response to SMW-38
The commenter requests temporary impacts to wetland and riparian habitat to be mitigated at a 2:1 ratio and for only native species to be planted.

Impacts are characterized as temporary and permanent in the RDEIR to identify the nature of specific impacts, analyze them accordingly, and determine appropriate mitigation to offset impacts.

Temporary and permanent impacts were both fully evaluated. As discussed in RDEIR Section 3.4, Biological Resources, pages 3.4-51 and 3.4-52, temporary impacts will be restored to pre-project conditions immediately after the necessary work is completed and these areas will remain in the same location with the same conditions that occurred prior to the project. Permanent impacts will permanently remove the resource; thus, mitigation must take place at another on-site and/or off-site location and more planning is required to determine the appropriate conditions that must be available for the mitigation to take place and to be successful over time (e.g., soil conditions, hydrology, surrounding vegetation types, etc.). Thus, a higher mitigation ratio of 2:1 is proposed to account for the loss of the resource from the time when impacts occur to the time when the resource will be fully mitigated and replaced.

As stated above in Response to SMW-36, temporary impacts will be restored to pre-project conditions, which are the conditions that exist prior to project implementation, including pre-project contours and vegetation assemblages.

In response to the commenter’s concern that Mitigation Measure BIO-4 calls for revegetation with native species “where appropriate,” the map of jurisdictional features was created at a broad scale, and there may be portions of the jurisdictional feature that are unvegetated or contained non-native vegetation. Prior to any work in the area, the biological monitor can photograph and record the vegetation composition of proposed areas to be impacted in finer detail to document the pre-project conditions. Mitigation Measure BIO-4 is written to allow for this fine-tuning, which is why the language “where appropriate” was included (in case impacts occur in unvegetated areas). The intent of the mitigation measure is to commit the project to restore temporary impacts to pre-project conditions or better, and to replace native vegetation with native vegetation, as requested by the commenter.
Response to SMW-39
The commenter states an opinion that the RDEIR fails to provide analysis of cumulative biological impacts.

As stated in RDEIR Section 3.4, Biological Resources, on page 3.4-4, the proposed project has the potential to have a significant impact on the least Bell’s vireo and nesting birds. Mitigation Measures BIO-2a through BIO-2d would require pre-construction surveys for these species and implementation of protection measures if they are found to be present. Some of the other projects listed in RDEIR Section 4, Cumulative Effects, Table 4-1, Cumulative Projects, are located on sites with similar biological attributes and, therefore, would be required to mitigate for impacts on special-status wildlife species in a manner similar to the proposed project. The required mitigation would reduce the project’s contribution to any significant cumulative impact on special-status wildlife species and the project’s contribute would not be cumulatively considerable, as none of these species are expected to drop below a sustainable level.

In addition, Mitigation Measure BIO-2b would require that for permanent grading impacts to least Bell’s vireo habitat, on-site or off-site restoration or enhancement of least Bell’s vireo habitat would occur at a ratio no less than 3:1. Thus, with implementation of this mitigation measure, there will be a net increase in habitat to support the least Bell’s vireo, and cumulative impacts to this species would not be cumulatively considerable and therefore would be less than significant.

The proposed project has the potential to have a significant impact on sensitive riparian communities and wetlands. Mitigation Measures BIO-3 and BIO-4 are proposed requiring restoration or replacement of disturbed features. Some of the other projects listed in RDEIR Section 4, Cumulative Effects, Table 4-1, Cumulative Projects, are located on sites with similar biological attributes and would be required to mitigate for impacts on sensitive riparian communities and wetlands. The required mitigation would reduce the project’s contribution to any significant cumulative impact on sensitive riparian communities and wetlands to less than cumulatively considerable. All other project-related biological resource impacts (e.g., wildlife movement, conservation plans) were found to be less than significant and did not require mitigation.

Contrary to the commenter’s assertion, the project would not result in cumulatively considerable impacts with respect to biological resources impacts. The RDEIR fully analyzed all potential biological resources impacts and provided mitigation where necessary. The full biological discussion relative to cumulative impacts can be found in RDEIR Section 3.4, Biological Resources, pages 3.4-3 and 3.4-4.

Response to SMW-40
The comment describes the City’s regulations with respect to tree removal. The comment is noted but does not warrant a response.

Response to SMW-41
The commenter states an opinion that the tree removal is a “large scale tree removal” and disagrees that replanting trees would result in a less than significant project impact.

Only those trees within the project footprint or within the immediate vicinity of the project footprint were surveyed, and these trees comprise only a small fraction of the total number of trees within
the project site boundary, most of which will be completely avoided by the project. As such, the impacts associated with project construction and implementation are not considered “large scale tree removal” when the total number of trees on the project site are taken into account. With the exception of those trees within Santiago Creek that will be impacted by the installation of the storm drain outlet, the majority of the on-site trees that will be impacted are scattered and therefore provide a lower ecological value as habitat. These scattered trees also include a large number of non-native tree species (e.g., bottlebrush (Callistemon citrinus) and gum tree (Eucalyptus globulus)).

The City requires a 1:1 mitigation replacement ratio for all trees that would be removed by the proposed project, and compliance with the existing regulations outlined in the City of Orange Municipal Code, Chapter 12.32—Tree Preservation would reduce impacts to regulated trees to a less-than-significant level (see also RDEIR Section 3.4, Biological Resources, pages 3.4-58 through 3.4-61).

Response to SMW-42
Please see Response to SMW-41.

Response to SMW-43
Comment acknowledged. It is not clear specifically what is being referred to as the number of truck trips to prepare the site for development. The project trip generation is based on the most current version of the ITE Trip Generation Manual (10th Edition 2017), which is the appropriate reference manual to determine the Project trip generation forecast and is consistent with the City of Orange Traffic Impact Analysis Guideline requirements. See Master Response 9—Soil Import/Export Numbers for a discussion of the amount of earthwork required to implement the project.

Response to SMW-44
See Master Response 9—Soil Import/Export Numbers

Response to SMW-45
The commenter questions the RDEIR’s trip generation based on a “Materials Recycling and Backfilling Operation Trip Credit.” The commenter asks why the RDEIR relies on the year 2010 to determine trip credit rather than year 2011.

The “Materials Recycling and Backfilling Operation” was based on traffic counts conducted during normal operation in October/November 2010 and adjusted to account for 7:00 a.m. to 7:00 p.m. operation. The materials recycling and backfilling operation was one of two trip generation scenarios analyzed in the TIA. It excluded credit for the existing sand and gravel operation and is used to illustrate the typical entitled traffic condition.

Given that the Sand and Gravel operation was suspended prior to preparation of the TIA, traffic counts could not be retaken and the 2010 data, which is reliable and reflects entitled conditions, was used in the TIA. Given that the Sand and Gravel operation was at its peak in 2011, the 2010 data underestimates the potential trip credit for the entitled sand and gravel operation scenario and therefore would be a conservative analysis.
Response to SMW-46
The commenter states that materials recycling does not appear to be considered in trip generation estimates. The TIA analyzes the project completion condition, which includes Planning Area D and consists of the greatest trip generation condition. Because it represents conservative estimates of impacts, materials recycling is not required to be included in the trip generation estimate.

Response to SMW-47
The commenter states concern for safety hazards caused by the project's traffic. Construction of the project will not significantly change roadway conditions, such that roadway safety would be impacted beyond the current condition.

As stated in RDEIR Section 2, Project Description, page 2-55, current traffic volumes resulting from the existing on-site rock crushing operation generates approximately 686 daily trips, of which over 500 of those trips is truck traffic. Further, the RDEIR indicates that “the project would require up to 275,400 haul trips during the 1.5-year grading period,” resulting in approximately 700 trips per day.

The potential project construction schedule/period is consistently referred to as 1.5 years to 4.5 years in the RDEIR; however, out of an abundance of caution and for purposes of providing the most conservative analysis, a short time frame is used in certain instances. Thus, a conservative estimation would result in a net increase of approximately 200 truck trips per day.

In compliance with City of Orange Municipal Code Section 12.36.050, a transportation permit will be required to allow for the monitoring of truck traffic throughout the City, and to minimize the potential of damage to City infrastructure by oversize and overweight vehicles. Pursuant to City of Orange Municipal Code Chapter 10.67.030, transportation permits are also required in conjunction with moving earth materials (dirt, sand and gravel). Per the City of Orange Grading Manual, permits are issued when moving more than 500 cubic yards of material, or if moving on public roadways that are not designated as approved City truck routes. Hauls in excess of 30,000 cubic yards requiring the use of City streets require City Council approval and the possible provision of the following additional measures:

- Periodic safety inspection of all haul trucks.
- A hold harmless agreement between the City of Orange and the grading contractor will be required for vehicles hauling earth material to and from the project site.
- Flagmen and/or automatic traffic lights may be necessary as required by the City Traffic Engineer.
- A cash deposit may be required to ensure against loss of pavement life along primary haul routes.
- Furthermore, the City Traffic Engineer will be responsible for identifying and approving haul routes for the project. Additionally, Chapter 10.66 of the City of Orange Municipal Code identifies the following streets as fixed truck routes.
  - Anaheim Boulevard
  - Batavia Street
  - Chapman Avenue to North City Limits
  - Chapman Avenue to Lincoln Avenue
Chapman Avenue  West City Limits to East City Limits, except as otherwise limited in City of Orange Municipal Code Section 10.66.030B
Collins Avenue  Eckhoff Street to Glassell Street
City Drive, The  South City Limits to North City Limits
Garden Grove Boulevard  West City Limits to East City Limits
Glassell Street  Collins Avenue to North City Limits
Katella Avenue  West City Limits to East City Limits
La Veta Avenue  Main Street to the eastbound ramp connections of the Garden Grove Freeway (SR-22).
Lincoln Avenue  West City Limits to East Santiago Canyon Boulevard
Main Street  South City Limits to Chapman Avenue
Main Street  Collins Avenue to Taft Avenue
Meats Avenue  Glassell Street to Orange-Olive Road
Orange-Olive Road  Glassell Street to Lincoln Avenue
Orangewood Avenue  West City Limits to Eckhoff Street
East Santiago Canyon Boulevard  Northbound off-ramp (East Santiago Canyon Boulevard/Nohl Ranch Road) of the Costa Mesa Freeway (SR-55) to the northbound on-ramp of the SR-55
East Santiago Canyon Boulevard  West City Limits to Chapman Avenue
State College Boulevard  Chapman Avenue to North City Limits
Taft Avenue  West City Limits to Glassell Street
Town & Country Road  Main Street to the eastbound on-ramp of SR-22
Tustin Street  South City Limits to North City Limits

As noted in the table above, East Santiago Canyon Road is designated as a fixed truck route from the west City limits to Chapman Avenue, which includes the portion of East Santiago Canyon Road adjacent to the project site. East Santiago Canyon Road would be the anticipated truck route for construction of the project, precluding any safety concerns identified by the City’s Traffic Engineer.

Response to SMW-48
The commenter states an opinion that the RDEIR fails to adequately analyze construction related air quality impacts.

The RDEIR includes haul truck emissions in the impact analyses. Impacts AIR-2 and AIR-4 include those emissions as shown in RDEIR Section 3.3, Air Quality, Table 3.3-8, Table 3.3-9, Table 3.3-17 and Table 3.3-18. The appendix to this Final EIR includes emission estimates consistent with the information in the referenced tables.
As discussed in the RDEIR, the localized analysis is based on concentrated emissions around the project site. The health risk assessment includes all sources of emissions, including construction equipment and haul trucks, within 1,000 feet of the project site. Therefore, contrary to the commenter’s assertions, the RDEIR addressed emissions from these sources.

The amount of earthwork used in the analysis of air quality emissions is consistent with the project description and the Specific Plan. As discussed in Impact AIR-2, the project would import approximately 877,000 cubic yards of new material, and remove 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10 cubic yards per load (plus the return of one empty truck). Based on this information, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period. Haul truck emissions were included in the analysis of regional emissions. The comment indicates, “the Project may expose nearby sensitive receptors to an elevated health risk, which would likely require the preparation of a health risk assessment.” However, as discussed in the Impact AIR-4, the RDEIR already includes a health risk assessment that evaluates both on-road and off-road emissions sources.

The previous version of the modeling had the “Site Preparation” and “Grading” construction phases as separate and overlapping phases. The revised modeling assumptions had a combined “Site Preparation/Grading” phase with an increase in the total number of days for those phases to account for the haul trips. The longer construction schedule resulted in a slight decrease in the daily on-site emissions (the majority of haul truck emissions are off-site). With both the original modeling in the DEIR and revised modeling in the RDEIR, the localized emissions would not exceed the recommended thresholds of significance.

Response to SMW-49
The commenter states an opinion that the RDEIR fails to adequately mitigate energy related impacts.

CEQA requires an evaluation of whether energy consumption would be wasteful, inefficient, and unnecessary. Both the discussion in RDEIR Section 3.18, Utilities, and Section 6, Other CEQA Considerations, subsection 6.4, Energy Conservation, provide evidence of how the project, while increasing energy consumption, would not be wasteful and inefficient by complying with federal, State, and local requirements.

The RDEIR found that impacts related to energy consumption would be less than significant. Therefore, mitigation measures are not required.

Response to SMW-50
The commenter argues that the RDEIR fails to adequately analyze and mitigate GHG emissions.

As described in RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-21, of the RDEIR, the project’s combined long-term operational emissions and amortized construction emissions would generate approximately 1,921 metric tons (MT) carbon dioxide equivalent (CO2e) per year and would not exceed the applicable South Coast Air Quality Management District (SCQMD) threshold of 3,500 MT CO2e per year. As such, the project’s generation of GHG emissions would not result in a significant impact. Because the project’s generation of GHG emissions would not result in a significant impact, no mitigation is necessary to the project’s generation of GHG emissions.
The commenter states that the RDEIR provides “no analysis at all of the Project’s consistency with state plans to reduce GHG emissions.” However, as described in the discussion under Impact GHG-2, the project would not conflict with the California Air Resources Board (ARB) adopted Assembly Bill 32 (AB 32) 2008 Scoping Plan.

Response to SMW-51
Please refer to Master Response 1—Plan Consistency.

As described in RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-25, the project would not conflict with the City of Orange General Plan. Natural Resources Policy 3.2 is a policy for the City of Orange to develop and adopt a comprehensive strategy to reduce GHG emissions within Orange by at least 15 percent from current levels by 2020. This specific policy is for the City to develop and adopt a GHG reduction plan. As stated in RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-22, the City of Orange had not adopted a GHG reduction plan at the time of the analysis, and this policy cannot be implemented by an individual development project. CEQA does not require a project analysis to quantify all possibilities in which GHG emissions could be “avoided.” Rather, the RDEIR provides a discussion of the overall project characteristics that support consistency with the General Plan. Since the project would not conflict with the ARB Scoping Plan or the City of Orange General Plan and would not exceed the applicable SCQMD’s threshold of significance, the project would not impede regional or State GHG reduction goals. This information is included in the summary subsection of RDEIR Section 3.7, Greenhouse Gas Emissions, on page 3.7-25.

In addition, RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-19, indicates that the residential-specific draft SCQMD thresholds of 3,500 MT CO₂e per year for annual operational emissions and amortized construction emissions would be used to evaluate whether the project’s generation of GHG emissions would result in a significant impact on the environment. As described in RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-21, the combined long-term operational emissions and amortized construction emissions from the project would generate approximately 1,921 MT CO₂e per year and would not exceed the applicable SCQMD threshold of 3,500 MT CO₂e per year. This explanation was provided to support the conclusion that the project’s generation of GHG emissions would not result in a significant impact.

The commenter provides a general statement with no supporting evidence that the project is “clearly inconsistent” with the General Plan. As described in RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-25, the project would not conflict with the City of Orange General Plan and would be consistent with the goals and policies adopted for the purposes of reducing the emissions of GHGs contained within the City’s General Plan.

Response to SMW-52
The commenter argues that the RDEIR fails to analyze project consistency with State plans to reduce GHG emissions.

The project was assessed for its consistency with the ARB adopted AB 32 Scoping Plan under Impact GHG-2. In addition, because the project’s combined long-term operational and amortized
construction emissions would not exceed the applicable threshold of significance recommended by the lead agency, the project would not impede regional and state GHG reduction goals.

The commenter provides examples from the San Diego Association of Governments (SANDAG) Regional Transportation Plan (RTP) EIR as a methodology for estimating emissions based on a threshold, but fails to provide how a regional plan (from another county) would translate into a project-level analysis. As stated in RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-25, the thresholds of significance are considered an allowable amount of emissions under which a project would not impede regional or State GHG reduction goals. The project’s combined long-term operational and amortized construction emissions would not exceed the applicable SCAQMD threshold of significance.

The analyses contained within Impacts GHG-1 and GHG-2 adequately addressed the project’s GHG and climate change impacts. Both impacts were found to be less than significant; therefore, no mitigation is required.

**Response to SMW-53**
The commenter states an opinion that the RDEIR fails to identify construction related noise impacts.

The construction noise impact analysis contained in RDEIR Section 3.12, Noise, pages 3.12-20 and -21 analyzed the “reasonable worst-case” noise impacts from construction activity on the project site to sensitive receptors in the project vicinity. The analysis identified that the closest sensitive receptor to the project construction footprint would be the residential land uses located directly east of the project site. The analysis identified that these homes would be located as near as 100 feet from the center of the nearest construction footprint where multiple pieces of heavy equipment could be operating simultaneously. The analysis further identified that, at this distance, the loudest construction activities could be expected to result in noise levels ranging up to approximately 84 A-weighted decibel (dBA) maximum noise/sound level (L_max) intermittently when multiple pieces of heavy construction equipment operate simultaneously at the nearest center of construction activity. The analysis concluded that “compliance with the City’s permissible hours of construction, as well as compliance with best management practices, construction noise reduction measures outlined in Mitigation Measure (MM) NOI-1a, would ensure that construction noise would not result in sleep disturbance of sensitive receptors or exposure of persons to noise levels in excess of established standards.” Since the analysis determined that construction noise impacts would be less than significant for the closest sensitive receptors located only 100 feet from the construction footprint, it can reasonably be concluded that impacts to receptors further from the project site (such as the Salem-Lutheran Church and School located over 600 feet from the nearest construction footprint) would be similarly reduced to less than significant with implementation of Mitigation Measure NOI-1a. Therefore, the conclusion that all project-related construction noise impacts would be reduced to less than significant with implementation of Mitigation Measure NOI-1a remains valid.

**Response to SMW-54**
The commenter alleges that the RDEIR fails to adequately address the project’s growth-inducing impacts.
The RDEIR acknowledges that the surrounding area is already developed with infrastructure and housing. RDEIR Section 2, Project Description, Exhibit 2-5, Surrounding Properties with Lot Sizes under 10,000 square feet, depicts the location of lots less than 10,000 square feet in size, which surround the project site to the north west and southwest. The Reserve Community to the east is, as the commenter points out, comprised of larger lots (20,000-44,000 square feet). It should be noted that the Reserve Community is currently bordered by smaller lots to the south, which has not resulted in requests for subdivision. Any such application would have to undergo environmental review and processing by the City of Orange.

The proposed project would develop 128 dwelling units, which would add 393 persons to the City of Orange’s population, which represents an increase of 0.3 percent relative to the City’s population of 141,420. A portion of the project site is currently designated for residential use by the City of Orange General Plan and Orange Zoning Ordinance and, thus, is contemplated to support population growth. Growth inducement impacts were found to be less than significant. Please refer to Master Response 1—Plan Consistency.

Response to SMW-55
Please see Master Response 8—Analysis of Alternatives.

Response to SMW-56
Please see Master Response 3—Analysis of Alternatives.

Response to SMW-57
Please see Master Response 1—Plan Consistency

Response to SMW-58
Please see Master Response 3—Analysis of Alternatives.

Response to SMW-59
Please see Master Response 3—Analysis of Alternatives.

Response to SMW-60
Please see Master Response 3—Analysis of Alternatives.

Response to SMW-61
Please see Master Response 3—Analysis of Alternatives.

Response to SMW-62
The commenter argues that the RDEIR should be recirculated because significant new information is presented and the EIR is inadequate. Contrary to the commenter’s assertion, significant new information is not presented; instead, the information contained in these responses is amplifying and clarifying information, and the information presented in the RDEIR is adequate. Therefore, recirculation is unnecessary.

Response to SMW-63
Please see Master Response 9—Soil Import/Export Numbers.
Response to SMW-64
Please see Master Response 9—Soil Import/Export Numbers.

Response to SMW-65
Please see Master Response 9—Soil Import/Export Numbers.

Response to SMW-66
The commenter asks whether the backfill operation identified in Appendix I is a component of the proposed project or separate from the project.

These comments refer to Appendix I, Geotechnical Investigation from 2011, which reflects that previously mined portions of the site were “backfilled,” in which unsuitable materials were excavated and replaced with fill. Backfilling is not proposed as part of the project. The information provided in Appendix I relates to the larger Rio Santiago Specific Plan analysis. The purpose of including this information from the Rio Santiago Specific Plan project is not to identify contradictory cut and fill numbers, but to provide additional support for the characterization of subsurface soils and the likely methods of construction required.

Response to SMW-67
The comment asks whether the silt pond excavation, spreading, and mixing activity that occurred in 2011 was eliminated from the project and why backfilling would occur for 391 days, compared to the Rio Santiago EIR, which estimated backfilling would be 1,129 days. These comments refer to Appendix I, Geotechnical Investigation from 2011. The information provided in Appendix I relates to the larger Rio Santiago Specific Plan analysis. The purpose of including this information from the Rio Santiago Specific Plan project is not to identify contradictory cut and fill numbers, but to provide additional support for the characterization of subsurface soils and the likely methods of construction required.

In 2011 when the Rio Santiago Project was analyzed, previously mined portions of the site were used for residue silt deposition, otherwise known as silt ponds. As stated in RDEIR Section 2, Project Description, page 2-2, the previously mined portions of the site were “backfilled,” in which unsuitable materials were excavated and replaced with fill, pursuant to a Grading Permit No. 2047 issued by the City of Orange in 2011. It was anticipated that approximately 223,000 cubic yards of material was imported to the site during the process, including concrete, asphalt and rock that was crushed on-site. Approximately 2,000 cubic yards of material was excavated from the site for reuse and blended with the crushed import material for a total of 225,000 cubic yards of backfill. In 2015, in a “good faith” gesture, the property owner voluntarily temporarily suspended operations on the site, and limited rock crushing operations to a total of 15 consecutive business days in any 6-month period. As a result of backfilling between 2011 and 2018, the backfilling activities that would be required to implement the project would be estimated to occur for 391 days. The duration is shorter than what was required for the Rio Santiago Project because backfilling has continued since 2011.

While backfilling is a permitted use, it is not proposed as part of the project.

Response to SMW-68
The commenter asks why the RDEIR relies on technical appendices from the Rio Santiago Project.
The information provided in Appendix I relates to the larger Rio Santiago Specific Plan analysis, as the commenter points out. The purpose of including this information from the Rio Santiago Specific Plan project is not to identify contradictory cut and fill numbers, but to provide additional support for the characterization of subsurface soils and the likely methods of construction required. Contrary to the assertions of the commenter, the RDEIR did not rely on grading details prepared for an entirely different project.

Response to SMW-69
Please see Response to SMW-45 and SMW-46.

Response to SMW-70
Please see Response to SMW-45 and SMW-46.

Response to SMW-71
Please see Response to SMW-45 and SMW-46.

Response to SMW-72
See Master Response 1—Plan Consistency. As discussed in Master Response 1, the project is consistent with the General Plan and therefore, does not violate State Planning and Zoning Law, contrary to the commenter’s assertion.

Response to SMW-73
The comment is a concluding statement summarizing the other comments set forth in the letter. Responses have been prepared to all of the referenced comments.
December 31, 2018

Sent via Email

Robert Garcia, Senior Planner  
City of Orange, Community Development Department  
Planning Division  
rgarcia@cityoforange.org

Re: Trails at Santiago Creek Recirculated Draft Environmental Impact Report

Dear Mr. Garcia:

This law firm represents the Southwest Regional Council of Carpenters (Southwest Carpenters) in relation to the above-referenced project and submits this letter on its behalf.

Southwest Carpenters represents 50,000 union carpenters in six states, including in Southern California, and has a strong interest in ensuring well-ordered land-use planning and reducing the environmental impacts of development projects, such as the Trails at Santiago Creek Project (Project). In the Recirculated Draft Environmental Impact Report (DEIR), the City of Orange (City) determined the unmitigated Project would have a significant effect on several aspects of the environment.

The City describes the Project as constructing 128 single-family houses on individual lots across 40.7 acres on land currently zoned exclusively for sand and gravel operations, in addition to 40.2 acres of “Greenway/Santiago Creek” and 28.3 acres of Grasslands/Open Space. The City also describes the Project as including the construction of trails of undisclosed number, total mileage, and configuration, on-site and off-site public infrastructure, grading, and potential installation of off-site sound walls. The City describes the Project as including the following approvals:

- A General Plan Amendment to Change the City of Orange General Plan Designation for the site from Resource Area to Low Density Residential and Open Space; and from Low Density Residential to Open Space;
- A Zone Change to re-designate the site designation from Sand and Gravel and Single Family Residential to Specific Plan;
- Development Agreement
- Adoption of the Trails at Santiago Creek Specific Plan.
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Southwest Carpenters presents its comments of the DEIR, below, and looks forward to reviewing the City’s responses to these comments when it releases the FEIR or a new Recirculated Draft Environmental Impact Report for the Project.

**Project Description**

The DEIR does not provide a sufficiently detailed Project Description, such that commenters could understand all relevant features and potential impacts of the Project. Please revise the Project Description to include answers to the below questions.

While the City claims nearly 70 acres of the Project site will be preserved in some form of open space, it does not disclose whether all relevant parcels will be deed restricted to remain perpetually as open space. Please disclose whether the relevant Project parcels will be preserved as open space through a conservation easement or equivalently protective deed restriction.

The City discloses it entered into a “pre-development agreement” with the Project applicant. (DEIR¹, p. ES-3.) This pre-development agreement states the Project would require certain approvals the City does not reference in the Project Description, including a Major Site Plan Review and Design Review. (ES-3.) Please clarify whether the Project will require these or other additional approvals. If the Project will not require these additional approvals, please explain why these approvals will not be required.

The City states the Project will require approximately 877,000 cubic yards of imported fill and 500,000 cubic yards of exported contaminated soils. (2-62.) Please clarify whether the City considers these activities as part of the Project, as opposed to mitigation required to reduce Project impacts. If the City claims these are Project features and does not evaluate these activities as mitigation, the City has erroneously compressed its analysis of impacts and mitigation. Also, the City does not fully describe the scope of the on-site grading activities. However, the City’s maps showing the location of proposed grading indicate all land south of the creek will be graded, although only about one-third of Project land is slated for development as single-family housing. (3.4-8.) Please further clarify the extent of Project grading and explain why the Project will require grading in areas not slated to include single-family housing. Finally, please disclose whether the Project will require a grading permit and, if so, what type.

The City does not clarify how many miles of trails will be built, the configuration and number of these trails, or whether these trails will be open or closed to the public. (6.4-51.) Further, the City does not state whether the Project will remove existing access to the Santiago

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¹ Unless otherwise indicated, all references are to the Project DEIR.
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Creek Trail. It is not possible to understand the environmental impacts of the Project absent this information. Please clarify this in the City’s next environmental document for the Project.

It is unclear how many acres of sensitive habitat will be disturbed and permanently lost due to the Project, only that the Project will provide mitigation for this lost land. (ES-24.) Please provide a summary of the total impacted and permanently lost acres, including any lost wetlands and protected species’ habitat, so that members of the public can understand the impacts of the Project.

The City provides a list of measures on pages ES-5 and ES-6 of the DEIR. However, it is unclear whether the City presents these as a part of the Project or mitigation measures. It is also unclear whether the City intends to make these binding as mitigation on the Project. If the City claims these are Project features and not mitigation measures and has analyzed the Project in the DEIR as though the Project included these features, this has skewed the City’s analysis of the impacts of the Project, as well as required mitigation. Please clarify this in the City’s next environmental review document for the Project.

The City hints that a variety of federal and state approvals will also be necessary prior to Project implementation. In the Project Description, please list all approvals that must occur.

Finally, on a related topic, it is noteworthy that the City Council rejected the previously proposed Rio Santiago project. (2-35.) However, in the DEIR, the City does not disclose the reasons for Project denial. If Project denial was premised on the environmental impacts of that project, this information would be highly relevant to the City’s review of the Project. Please disclose all relevant reasons for the City Council’s denial of the Rio Santiago project. If these reasons involve environmental concerns, please disclose whether the Project involves the same or similar environmental concerns, and, if so, whether the Project addresses any of the concerns that caused the denial of the Rio Santiago project.

Baseline

Apart from the City’s evaluation of traffic impacts, it appears to have evaluated baseline conditions as though there was year-round rock crushing activity, equating to 686 daily trips, 500 of which are “truck” trips. (2-55 – 2-56.) However, baseline conditions only include 30, as opposed to 365, days of rock crushing trips each year. Thus, the City’s analysis appears to skew the Project baseline in a manner that downplays Project impacts. Please revise the DEIR to properly disclose baseline conditions and evaluate Project impacts according to this corrected baseline.
Aesthetics

The City states the Project will not affect views from Santiago Creek Trail. (3.1-8.) However, the City provides no evidence to support this conclusion, and images the City has provided from this trail show only partially obstructed views from this trail. Absent evidence, such as graphic representations of the Project site from the trail, the City’s conclusion is not supported by substantial evidence. Further, the City’s conclusion relies on Project features that do not constitute baseline conditions: “A greenway would be established along the creek corridor and the undeveloped land along the north bank of the creek would be permanently established as open space.” (3.1-8.) Even incorporating these assumptions, the City has still failed to support its conclusion that “scenic views from the Santiago Creek Trail would not be affected by the project.” (3.1-8.) Please revise this analysis and mitigate Project impacts to these views as needed.

The City references its Tree Protection Ordinance but does not disclose whether the loss of trees protected by this ordinance may result in a significant aesthetic impacts. (3.1-7.) Please evaluate these aesthetic impacts.

The City does not provide sufficient reasoning to determine other City Code provisions do not apply to the Project. The City summarily states:

Other areas of the Code related to aesthetics are not applicable to the proposed project because of the Planning Community (PC) zoning allows for the Specific Plan (SP) to create its own design standards.

(3.1-7.) This analysis is putting the cart before the horse. The City must describe impacts from baseline conditions, not from hypothetical “approved Project” conditions. The City’s analysis must be revised to include a discussion of impacts that may be created by the Specific Plan adoption, in reference to pre-adopt conditions. The City must disclose these “other areas of the code related to aesthetics” and openly evaluate whether these other code provisions apply to the Project, and whether the Project will result in significant impacts in relation to these code provisions.

The City concedes “development of residences on site would change the character of approximately 40.7 acres of the project to residential uses,” but then summarily concludes “these changes would not result in a significant impact.” (3.1-9.) The City must provide more than conclusory statements to provide a valid analysis of Project impacts. Further, contrary to the City’s statement, all evidence shows the development of undeveloped land, including open
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space, into 128 residences *would* impact views, both from Santiago Creek and East Santiago Canyon Road.

**Air Quality**

The City’s evaluation of cumulative air quality impacts is invalid. The City states:

The AQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. In this report, the AQMD clearly states (page D-3):

The AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR... Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

(3.3-25 – 3.3-26.) The Southern California Air Quality Management District (SCAQMD) has never promulgated such a significance threshold, and if it or any other lead agency were to rely on such a threshold, this would violate the clear mandate of CEQA to evaluate the cumulative impacts of the Project.

CEQA defines “cumulative impacts” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” (14 Cal. Code Regs. § 15355.) Crucially, “Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (14 Cal. Code Regs. §15355(b).) Indeed, the primary purpose of the cumulative impacts analysis is to evaluate impacts that are individually less than significant but are cumulatively significant when considering these impacts in conjunction with “other past, present, and reasonably foreseeable future projects.” (14 Cal. Code Regs. § 15355.) An interpretation of this mandate that only requires the City to consider impacts that are individually significant violates this mandate and serves to entirely write this analysis out of CEQA. (4-3.) This faulty reasoning caused the City to determine the Project would have no cumulative air quality impacts, even for criteria pollutants the City claims the Southern California Air Basin (SCAB) is in non-attainment. Please revise this analysis to be consistent with the requirements of CEQA.

The City concludes only NOx emissions are significant prior to mitigation. (3.3-28.) However, the vast majority of the City’s mitigation is directed at reducing PM10 emissions.
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Please provide further justification for the City’s claim that the proposed mitigation would reduce Project NOx impacts. Regarding the City’s determination that Project impacts will be significant and unavoidable, please clarify this determination was only made in regard to NOx emissions. (See 3.3-39.)

The City’s mitigation measure AIR-1g permits use of non-Tier IV Final off-road equipment. (3.3-33.) However, the City’s evaluation of post-mitigation Project impacts assumes the Project will exclusively employ Tier-IV-Final vehicles. (E.g., 3.3-47 (Table 3.3-18.).) This assumption is unsupported by the clear language of the mitigation measure, which permits more pollutive engines. Please revise the analysis of post-mitigation impacts to evaluate whether Project impacts will be less than significant using other lower-tier engine vehicles.

The City did not disclose the number of daily truck trips the Project would create, or whether it would be feasible to reduce the number of daily truck trips. The City only states the Project would generate 275,400 haul trips. It is unclear whether the City adequately evaluated air quality impacts during the construction of the Project. Also, it is unclear whether the City used the proper baseline of 30 days of rock-crushing trips per year. The evaluation of Project impacts would differ greatly using the other baseline suggested by the City of year-round rock-crushing activities. Please disclose the baseline the City used to determine the significance of Project impacts.

More information is necessary to understand the impacts of the Project. Tables 3.3-8 and 3.3-9 provide no reference to whether impacts to ozone will be significant. Further, Table 3.3-10, does not disclose the number of daily trips or trip lengths the City relies on to arrive at these calculations. Finally, for Table 3.3-1, please clarify whether 2017 and 2018 figures are available. If these figures are available, please update this table to include this data.

The Air Quality and Greenhouse Gas Appendix is confusing. Throughout the Appendix, the Appendix sets all hauling values, including trips, vehicle-miles traveled, and unmitigated off-site construction emissions, to zero. This implies the City assumed there would be no hauling trips in its determination of Project impacts. If so, then the City’s analysis of Project impacts has greatly understated Project construction impacts. Please further explain the City’s analysis regarding Project-related hauling trips.

The City’s Localized Significance Threshold (LST) operational impacts analysis seems flawed. The City assumes Project operation would only impact five acres of the Project site during project operation, but no evidence supports such a small acreage of the Project would be utilized during operation. Rather, the City states up to 50 acres of the Project site would likely be used daily for residential purposes. (3.3-43.) Further, the City’s discussion of Project impacts
seems to entirely ignore mobile emissions, which is the largest source of Project emissions, by far. (3.3-47.) Please revise this discussion to correct these erroneous assumptions and analysis.

**Biological Resources**

The City must better disclose baseline conditions on the Project site. For instance, while the City discloses the Project has the potential to impact least Bell’s vireo and California coastal gnatcatcher (3.4-15 – 3.4-16.), it only belatedly references other species that have been spotted on-site, such as the white-tailed kite and prairie falcon. (3.4-38, 3.4-40.) These references are buried towards the end of the City’s discussion of impacts to biological resources and fail to provide any in-depth analysis of these species, such as where individuals were spotted, how many, and when. Further, aside from least Bell’s vireo habitat, the City fails to disclose the acreage of potential foraging, dispersing, breeding, etc., habitat that exists on-site for any other species. Instead, contrary to the unusually high number of protected species sightings, the City seems to repeatedly dismisses the Project site as having no suitable habitat for these other species. This conclusion is contrary to the repeated and numerous sightings of these other protected species on the Project site.

It is also unclear whether the City’s biological surveying was sufficient to identify the presence or absence of all protected species. The DEIR does not clarify whether the City conducted thorough surveys or evaluated habitat suitability for all migratory bird species that have the potential to occur in the region and on-site. Please provide a list of all protected species that have the potential to occur in the region and on-site and identify which of the species on this list were seen onsite, are likely to occur onsite, or have suitable habitat onsite. Please revise the discussion of baseline Project site conditions to ensure greater accuracy and clarity.

The City does not provide sufficient evidence to support a finding that its proposed mitigation will significantly reduce impacts to protected species. (E.g., ES-22.) For instance, no mitigation measures are designed to limit noise during the operation of the Project, or to restrict operational use to avoid individuals of protected species, their habitat, or nesting sites. Further, while the City relies on City ordinances to claim lighting and other noise impacts will be reduced to a less-than-significant level, the City produces no evidence whatsoever that these ordinances were designed to protect wildlife, or that reducing noise and lighting impacts to a less-than-significant level for human purposes would provide equally less-than-significant impacts for wildlife. (E.g., 3.4-46, 3.4-58.) For lighting-related impacts, please direct readers to the relevant code section that would require this lighting to “be shielded away from Santiago Creek.” (3.4-58.) Most lighting ordinances do not regulate onsite exposure to lighting and only concern themselves with impacts to offsite receptors. Absent binding mitigation, it is unlikely the Project will be required to direct lighting away from the creek.
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In fact, the City’s mitigation measures presume take of endangered species, which, if unauthorized, is illegal and a significant impact by any measure. For instance, MM-BIO 2c only becomes effective after activities result in the take of least Bell’s vireo, not before. Once unauthorized take has occurred, actions to reduce the likelihood of future take do not serve to reverse or mitigate the significant impact that has already occurred. While the adaptive management promoted by this and other mitigation measures may be productive, it does not support a less-than-significant finding.

The City’s analysis regarding impacts to the California coastal gnatcatcher are deeply concerning. Although several individuals were seen onsite, even in more disturbed areas where they are more easily spotted, the City suggests impacts to this species will be less than significant although no mitigation is directed at reducing impacts to gnatcatcher populations. (3.4-15.) Although the City attempts to downplay the suitability of Project habitat, Southwest Carpenters is aware of no other project site that has had such a high number of gnatcatcher sightings, all of which the City somehow describes as “incidental.” The City attempts to downplay the significance of this habitat by describing it as temporary “dispersing” habitat but fails to provide an explanation as to why this sort of habitat is not crucial to the continued survival of the gnatcatcher, such that its loss would result in a significant impact. Indeed, the City suggests that only impacts to “critical” habitat would be significant. (3.4-40.) The Endangered Species Act does not provide such a narrow definition of habitat impacts, nor does it distinguish between the value of temporary versus permanent habitat, as both are crucial for species survival. Further, the City fails to evaluate the suitability of the riparian areas of the Project site to serve as gnatcatcher habitat. In short, there is clear evidence the Project site has significant habitat value for this species, such that its loss or disturbance may affect this species’ dispersal, foraging, and, possibly, nesting habitat. Please provide a more detailed analysis of gnatcatcher impacts.

The City determines no significant impacts would occur to the willow flycatcher. (3.4-44.) The City does not clearly state whether willow flycatchers are a protected species, such that impacts to this species and its habitat could result in significant impacts. The willow flycatcher is a migratory species and is, thus, protected under the Migratory Bird Treaty Act. The City does not state in its analysis of impacts to this species how the Project would avoid the take of this species. And, while the City claims flycatchers are not expected to breed within the offsite area, the City provides no evidence that the Project site contains no suitable nesting habitat for this species. Absent evidence that the Project will avoid the take of this species, which the City has yet to provide, the City cannot determine that impacts to this species will be less than significant and require no mitigation.
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The DEIR provides no discussion of impacts related to edge effects, although Project construction and operation will both reduce the total acreage of undeveloped buffer on the Project site, placing both construction and operational uses directly against the creek. (E.g., Exhibit 3.4-8.) According to DEIR maps, grading will occur directly adjacent to, and possibly within, the creek, including directly adjacent to areas the City has identified as least Bell’s vireo habitat. (Exhibit 3.4-8.) The City must evaluate impacts to protected species in light of this lack of buffer, as well as the temporary and permanent edge effects caused by the Project.

The City concludes, without evidence, that the total loss of 100 southern tarplant individuals and their habitat would not result in significant impacts to this species. (3.4-34.) The City arrives at this conclusion by stating that the loss of 100 individuals is per se less than significant; however, the City provides no standard or significance threshold to support this conclusion. This conclusion, thus, appears arbitrary. Please clarify at what point the City would consider impacts to this species to be significant. Absent the City’s adoption of a standardized threshold, impacts that result in the loss of any number of tarplant individuals or their habitat should be considered significant.

The City does not clearly state whether there will be any enforceable restrictions to dog or cat ownership within the Project site. Dogs and cats pose an existential threat to the continued existence of many protected species, including the California coastal gnatcatcher and least Bell’s vireo. To prevent impacts to these species, the City should clarify whether dog and cat ownership will be prohibited, or whether dogs and cats must be kept inside at all times. Further, the City should clarify whether there will be an enforceable prohibition against dog walking within Project open space and along Project trails.

Regarding impacts to the prairie falcon, the City suggests only direct impacts to this species would be considered significant. (3.4-40.) Please clarify whether the city only considers direct impacts to this species to be significant. If so, please state why this is so and under what standard.

The City appears to improperly compress its evaluation of impacts and mitigation in its evaluation of biological resources. The City lists a series of nine measures, which it describes as “project design features,” which “serve to avoid or minimize impacts to least Bell’s vireo.” (3.4-43, 3.4-58.) These are mitigation measures. By portraying mitigation measures as Project design features, the City has compressed its discussion of Project impacts and mitigation and, thus, failed to accurately describe Project impacts. Further, because these items are listed as “project design features,” it is unclear whether these measures will be enforceable as opposed to optional. Further, even assuming Project compliance with these features, what evidence is there that compliance with these measures will avoid unauthorized take of protected species?
Regarding mitigation measure MM Bio-2a, please clarify what the City means by “occupied” habitat when it says, “the following BMPs will ensure that indirect impacts will not occur to the least Bell’s vireo within 300 feet of occupied habitat.” (3.4-46.) Specifically, does this mean this mitigation measure is only aimed to protect habitat a biologist determines least Bell’s vireo individuals are currently using? The mitigation measure does not seem to be narrowly aimed to impacts to occupied habitat, nor should it be. Please remove reference in this mitigation measure to “occupied” habitat, accordingly. Further, while this mitigation measure references monitoring by a certified biologist, this mitigation measure does not explicitly require full-time biological monitoring. Please revise this mitigation measure to ensure there will be a full-time, qualified biological monitor onsite. Please further clarify whether this monitor will be required to report the take of any individuals of protected species.

The City advances constraining Project construction activities to daylight hours as mitigation but provides no evidence that this will actually reduce impacts to species the City has identified onsite. (3.4-46.) Species surveys conducted by the City were presumably only conducted during the day, and these surveys showed there was an abundance of activity during daylight hours. While some species are nocturnal, the species the City has identified as occurring onsite are not. Thus, restraining construction to only occur during the day serves to worsen, rather than decrease, Project impacts.

MM Bio-2a directly conflicts with other mitigation measures designed to reduce noise impacts on human sensitive receptors. This mitigation measure requires construction equipment to be sited “so that emitted noise is directed away from sensitive receptors (i.e., least Bell’s vireo territory within Santiago Creek).” (3.4-46.) However, this conflicts with mitigation measures designed to reduce impacts to human sensitive receptors, which require that this equipment be sited so that noise is directed away from these receptors. Please ensure all noise-related mitigation measures are consistent and provide the greatest possible mitigation to all sensitive receptors.

The City does not provide sufficient discussion regarding impacts to trees protected under the City’s Tree Preservation Ordinance. What evidence is there that impacts to trees protected under the ordinance will not result in a significant impact prior to mitigation? The DEIR states, “The Tree Preservation Ordinance . . . affords City staff discretion in imposing conditions on tree removal activities and replanting.” (3.4-61.) Because this ordinance provides City staff wide discretion, to rely on this ordinance, the City must disclose what conditions it will place on the Project and impose these conditions as Project mitigation.
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The City’s evaluation of cumulative impacts to biological resources is flawed. The City concludes the Project cannot have cumulatively significant impacts on biological resources so long as individual impacts remain less than significant. (4-4.) This analysis fails CEQA’s mandate to consider cumulative impacts. (14 Cal. Code Regs. § 15355.)

**Cultural Resources**

The third sentence in Mitigation Measure CUL-2 is incomplete. (3.5-23.) This sentence reads, “If the find is determined to have archaeological or paleontological [word or words missing], the procedures in Mitigation Measure CUL-1 or Mitigation Measure CUL-3 shall be implemented.” (3.5-23.) Please revise this mitigation measure to ensure it forms a coherent mandate.

Mitigation Measure CUL-3 is concerning and highlights an important deficiency in the Project Description. This mitigation measure is triggered, “If the subsurface excavations for this project are proposed to exceed depths of 15 feet below the surface...” (3.5-24.) The City must disclose whether Project excavation will reach this depth.

**Geology and Soils**

The City fails to provide an adequate baseline of conditions at the Project site and impacts of the Project. The City states, “At the time of this writing, a design-level geotechnical report for the Project not available. Such a report would provide recommendations on the appropriate level of soil engineering and building design necessary to minimize ground-shaking hazards.” (3.6-8.) Again, regarding potential impacts arising from liquefaction, the City states, “because of the proposed project’s location to Santiago Creek, the potential for liquefaction should be further explored and addressed during a design-level geotechnical exploration.” (3.6-8.) Instead of disclosing this information up front in the EIR, as required by CEQA, the City requires the Project applicant to submit this report at some later date, relying on this as-yet finalized report to conclude impacts under Significance Threshold GEO-1 would be less than significant. (3.6-8 – 3.6-9.)

The City has clearly failed to adequately disclose, address, or mitigate Project-related geological hazard impacts. The City should prepare and finalize the design-level geotechnical report it repeatedly references and disclose this information in a recirculated DEIR. As the City’s discussion of geological impacts currently reads, the City has provided insufficient information regarding the impacts of the Project to geology and soils.
Greenhouse Gases

The City provides insufficient evidence to show Project greenhouse gas impacts would be less than significant. In its discussion of greenhouse gas impacts, the City relies heavily on the analysis contained in Appendix F. However, Appendix F contains little to no discussion of greenhouse gas impacts. Instead, this appendix, itself, references what it calls appendices A and B, neither of which contain information relevant to the City's greenhouse gas analysis. (See Appendix F, p. 337.) It is impossible to understand what information the City used to arrive at its calculations of greenhouse gas emissions based on the tables provided in Appendix F. Further, these tables do not contain the same figures as those in the DEIR. The overall result of this discussion is confusing and uninformative.

Please clarify what baseline the City used to estimate project-related greenhouse gas impacts. Specifically, if the City assumed baseline rock-crushing traffic would occur year-round, this is not the correct baseline. Further, if the City assumes no hauling trips for the duration of Project construction, this assumption is contradicted by the clear evidence in the record that hundreds of thousands of hauling trips will occur over the duration of Project construction. In addition, please clarify what values the City used to determine operational mobile greenhouse gas emissions. In particular, please clarify values for the number, length, and duration of these trips, as each of those values are important to confirm the City has properly evaluated Project impacts.

The City relies on a quantitative threshold of 3,500 metric tons of carbon dioxide (MTCO$_2$e) per year. However, the quantitative threshold for residential uses advanced by SCAQMD is 3,000 MTCO$_2$e per year. Please clarify how the City arrived at its 3,500 MTCO$_2$e threshold.

The City provides an inadequate discussion of impacts under Significance Threshold GHG-2. Under this threshold, the City is required to evaluate whether the Project would "conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases." (3.7-22.) The City states:

At the time of this analysis, the City of Orange has not yet adopted a GHG reduction plan that the project can be evaluated against. In addition, the City has not completed the GHG inventory, benchmarking, and goal-setting process required to identify a reduction target and to take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97. Since no other local or regional climate action plan is in place, the project is assessed for its consistency with ARB's adopted AB
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32 Scoping Plan. This would be achieved with an assessment of the project’s compliance
with Scoping Plan measures.

(3.7-22.) This is the exact analytical approach that was invalidated by the Supreme Court in
Center for Biological Diversity v. California Department of Fish and Wildlife (2015) 62 Cal.4th
204. Please recirculate the DEIR with a revised analysis of Project greenhouse gas impacts that
is consistent with state law.

Hazards and Hazardous Materials

The City relies on a series of outdated environmental site assessments from 2000, 2009
and 2011. (3.8-1.) The City does not provide sufficient evidence to conclude that these
assessments, which are several years to two decades old, remain relevant for describing on-site
hazards and hazardous conditions. As the City is aware, the Project has continued to be used for
recycling and rock-crushing purposes, and landfill toxins may have continued to migrate onto the
Project site. Please provide additional evidence to support the City’s reliance on these outdated
studies or, otherwise, recirculate the DEIR with an up-to-date study that accurately describes
Project site conditions.

The City’s discussion of Significance Threshold HAZ-3 is wrong and completely
deficient. The City’s reasoning for determining impacts under this threshold are less than
significant do not match the standard provided by the City or CEQA Guidelines. HAZ-3 is
designed to evaluate whether the Project would “emit hazardous emissions or handle hazardous
or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or
proposed school.” (3.8-14.) The City discloses the Project would, indeed, handle, transport, and
emit hazardous emissions and materials within one-quarter mile of the adjacent Salem Lutheran
Church and School, but entirely dismisses these impacts by reasoning, “None of these uses
would involve routine use of hazardous or acutely hazardous materials, substances or waste.
Additionally, the proposed project’s uses would not involve activities that would routinely emit
toxic air contaminants (e.g., diesel particulate matter).” (3.8-14.) This is not the standard by
which the Project must be measured. By inserting the undefined term “routine” into the City’s
analysis, the City has entirely discounted the serious impacts the Project will cause to this and
potentially other schools under this significance threshold. This analysis fails to reference or
account for the hundreds of thousands of hauling trips that will be needed to transport toxic soils
off-site and replace these soils with clean fill. In short, this analysis entirely fails to disclose and
mitigate Project impacts in a manner that protects the students at this and any other nearby
schools, is unsupported by the overwhelming evidence to the contrary in the record and must be
revised in a recirculated DEIR.
Regarding Impact HAZ-5, the City does not fully analyze Project impacts. Please clarify whether Project construction would involve the closure of any roads, or individual lanes, to street traffic. Any road or lane closures may create a bottleneck in an evacuation and would, thus, pose a threat or otherwise impair the implementation of an adopted emergency response plan. If it is the City’s intention to prohibit any street or lane closures resulting from the Project, this must be included in the DEIR as mitigation.

The City also provides an inadequate discussion of fire hazards. First, the City fails to provide a sufficient description of baseline conditions. Please disclose whether some or all of the Project site is located within a Very High Fire Hazard Severity Zone, as this is crucial to determining whether Project impacts will be less than significant, as the City states. Because the Project is located on an urban/wildland interface, it is likely susceptible to a very high risk of fire hazard absent substantial mitigation. However, the City provides no mitigation that would prevent the exposure of “people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas.” (14 Cal. Code Regs., Ch. 3, Appx. G § VII(h).) The City’s brief analysis of this impact shows it has again compressed its discussion of impacts and mitigation measures and has inappropriately set forth mitigation measures as though they were Project design features. (3.8-16.) The City’s cursory analysis in incredibly concerning, as the Project likely has a high risk of exposing people and structures to wildland fire. Please revise this analysis in a recirculated DEIR.

**Hydrology and Water Quality**

The City concludes the Project has a less-than-significant potential to contribute to runoff and flooding. (ES-34.) Yet, the City states the Project will be required to formulate a flood evacuation plan. Please explain why a Project that has a less-than-significant flooding potential is required to create and implement a flood evacuation plan.

For Impact HYD-3, the City concludes the Project “would achieve no net increase discharge [sic] of stormwater into the Handy Creek storm drain during storm events.” (3.9-24.) However, this is because the City claims flows will be regulated by “riprap and an energy dissipater.” (3.9-24.) The City has, again compressed its discussion of impacts and mitigation measures in a manner that serves to downplay Project impacts and disinform readers. Please revise this discussion to evaluate Project impacts prior to mitigation.

**Land Use**

The City has erroneously determined the Project would not conflict with the General Plan designations currently in effect for the Project Site. (3.10-11.) However, if this were the case,
the Project would not require a General Plan Amendment re-designating land use from Resource Area to Residential. As the City admits on numerous occasions, the Project could not be constructed under current land use designations. Also, as the City recognizes, the Project would serve to greatly intensify the allowed land uses on the Project site as compared to currently permitted uses and activities. (See, e.g., 5-2.) Thus, the City’s conclusion is unsupported by the evidence in the record.

This concern is further compounded by the City’s faulty reasoning in support of its conclusion. The city states, “With implementation of the General Plan Amendment, the project will be consistent with the City of Orange General Plan.” (3.10-11.) This impermissibly evaluates Project consistency with the Project, rather than the impacts of the Project in reference to pre-approval baseline conditions.

The City’s analysis of General Plan consistency entirely overlooked the most important aspect of the General Plan as it relates to the Project site, the land use designation of the Project site. Instead of evaluating the most relevant aspect of the City’s general plan, the City cites to a bevy of generic General Plan policies that apply citywide. It does not serve the informational purposes of CEQA to omit the most important aspect of the General Plan as this document relates to the Project site and doing so creates the appearance of the City intentionally glossing over this information.

The General Plan designation of Resource Area does not permit the construction of residential units. This designation, “provides for the continued use of areas for mining and agriculture. Passive and active recreational uses are also permitted in areas with this designation. Resource Areas also serve as a holding zone for areas that are currently used for mining and agriculture, but may not have these uses in the future.” This designation further “Allows for agricultural uses and continued use of stream and river channels for aggregate mining. Passive and active recreational uses are also permitted.” The City’s General Plan discloses that only 93 acres of Resource Area-designated land exist in the City, the vast majority of which are found on the Project site. The Project proposes to re-designate this land to uses other than Resource Area, thus resulting in the near-total loss of land designated as Resource Area in the City. The City was required, but failed, to disclose this in the DEIR. The Project is clearly inconsistent with this land-use designation, which applies to the Project over the more generic citywide provisions the City evaluates.

Likewise, the City concludes the Project would not conflict with the provisions of the City of Orange Municipal Code—in particular the City’s zoning provisions. (3.10-31.) This reasoning is flawed for the same reasons as the City’s reasoning regarding the Project’s General Plan consistency. However, as the City notes, the Project site must be rezoned: “These land use
changes are necessary to allow the proposed development on the site—meaning that the Project conflicts with land use designations currently in effect. The City’s reasoning fails to find support in the record and must be revised.

For Impact LUP-3, the City summarily states the Project would not conflict with the provisions of an applicable habitat conservation plan, but fails to support this conclusion with any evidence or other analysis. CEQA requires more of the City than conclusory statements. Please provide a detailed analysis of the consistency of the Project, or lack thereof, with all applicable habitat conservation plan policies.

**Noise**

For some reason, the City does not provide a quantitative analysis of Project construction noise impacts, although all of the City’s noise standards are expressed quantitatively. (3.12-20.) Importantly, the City does not disclose whether construction noise would exceed hourly or daily noise thresholds set by the City. Further, the City’s qualitative analysis of noise impacts confusingly segments noise impacts, such as crew commutes and transport of construction equipment, from the remainder of construction noise. This analysis excludes a discussion of the number and noise levels of Project-related truck trips during construction. (3.12-21.) However, these noise impacts will occur concurrently with other construction noise, so it is uninformative and defeats the purpose of CEQA’s impacts analysis to claim these segmented noises are individually less than significant.

The City’s analysis in Tables 3.12-12 through 3.12-14 provides a shifting baseline, which entirely fails the informational purposes of CEQA and serves to mask the significant impacts of the Project at multiple sensitive receptors. The Project will serve, either individually or cumulatively, to raise noise levels at certain sensitive receptors to levels above 65 dBA CNEL, a fact the City entirely fails to mention, address, or mitigate. No evidence supports the City’s conclusion Project noise impacts at these sensitive receptors will be less than significant prior to mitigation. Accordingly, the City’s mitigation fails to address impacts to off-site receptors during the long-term operation of the Project. MM NOI-1b and MM NOI-1c are the only operational mitigation measures; however, these mitigation measures only address impacts to “on-site receptors,” not to off-site receptors. (3.12-39.) Thus, impacts to off-site receptors remain significant and unmitigated, in violation of CEQA.

In the introduction of the DEIR, the City references certain promises made during community meetings, including the installation of a sound wall to shield certain off-site communities from Project-created sounds. However, the City makes no references to this promised sound wall in its discussion of Project noise impacts. Please clarify whether the City
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has assumed the installation of this sound wall would occur prior to mitigation, and whether the City has relied on the installation of this sound wall to determine Project impacts will be less than significant. If so, the City has, again, erroneously compressed its discussion of Project impacts and mitigation.

The City's evaluation of cumulative noise impacts is flawed. According to the City, impacts during construction will not be cumulatively significant because, "It is highly unlikely that a substantial number of the cumulative projects would be constructed simultaneously and close enough to one another for noise impacts to be compounded . . . . Therefore, it is reasonable to conclude that construction noise from the proposed project would not combine with noise from other development projects to cause cumulatively significant noise impacts." (4-9.) This is not consistent with the analysis required by CEQA. It is erroneous to artificially divide cumulative noise impacts into "construction" and "operation," as all that matters to sensitive receptors is the volume, not the type, of noise. Project construction will contribute to cumulatively significant noise impacts when considered in conjunction with all other contemporaneous noise impacts.

Regarding cumulative operational impacts, the City incorrectly reasons:

The proposed project's contribution to vehicular noise levels would not exceed the applicable thresholds of significance, which take into account existing noise levels as well as noise from trips associated with other planned or approved projects. Thus, the proposed project would not combine with other projects to cause a cumulatively considerable increase in ambient roadway noise.

(4-9.) This analysis is also improper. The City's analysis of noise impacts shows several locations will exceed 65 decibels CNEL during the lifetime of the Project. The Project will cumulatively contribute to these noise exceedances. The City must revise its evaluation of cumulative Project impacts to ensure its accuracy and compliance with CEQA.

Population and Housing

The City claims the Project will not result in individual or cumulative impacts related to population and housing. However, the City does not arrive at this conclusion in reference to population trends. If the City's population is exceeding its estimated growth rate, please disclose this. If this is the case, the Project will cumulatively contribute to this exceedance, including to all related environmental impacts.
Public Services

The City’s analysis of environmental impacts related to school services is entirely deficient. The City claims:

Pursuant to Government Code Section 65995 payment of adopted development fees is the “full and complete mitigation” for impacts to school facilities and local governments are prohibited from assessing additional fees or exactions for school impacts

(3.14-9.) This statement is incorrect. The city is required to evaluate the direct, indirect, and cumulative impacts of the Project on school facilities and services. The City cannot entirely avoid consideration and mitigation of those impacts by relying on Section 65995. Please revise the DEIR to include a full discussion of Project-related impacts to schools.

The City has determined impacts to library facilities are less than significant, in part, because the City’s General Plan does not include any standards or goals for the provision of library services.” (3.14-10.) This analysis is insufficient as evidence to determine whether the Project will significantly impact library services, such that facilities will need to be expanded or new facilities constructed. Please add a further explanation of these impacts and provide mitigation as needed.

The City fails to adequately evaluate cumulative impacts in relation to public services. The City forecasts a doubling of the City’s service area, from “approximately 27 square miles with future expansion of up to 55 square miles.” (3.14-2.) Nonetheless, the City has concluded that cumulative impacts to public services will be less than significant prior to mitigation. In the City’s analysis of cumulative impacts, it does not explain how City services would be able to meet service needs absent substantial growth of these services and related facilities, in light of a projected doubling of the City’s service area.

Regarding cumulative impacts to fire department services, the City states:

According to the Fire Department, existing facilities are sufficient to serve the proposed project in conjunction with existing and cumulative projects. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively significant impact related to fire protection and emergency medical services.

(4-10.) This statement is conclusory and not based on evidence in the record. For the DEIR to adequately serve as an informational document, the City must support its conclusions with evidence. The City further reasons, again in a conclusory fashion, that impacts from all other
past, present, and future projects cannot become cumulatively significant because all other projects will be “reviewed for impacts on fire protection and emergency medical services and would be required to address potential impacts with mitigation.” (4-10.) This analysis is logically and analytically deficient. Individual Project mitigation will do nothing to stop the need for increased or modified fire department facilities, staffing, and vehicle trips. As the population and demands on this and other services increases, fire department staffing, vehicle trips, and facilities will need to expand.

Traffic

The City downplays the traffic impacts of the Project. The City, again, evaluates certain mitigation measures as though they were “Project design features,” thus failing to disclose the true impacts of the Project. (See, e.g., 3.16-85 – 3.16-85 (stating “The LOS calculations for this intersection include the following improvements that will be constructed as part of the proposed Project: Provide a third northbound through-lane.”).) the City’s conclusions that the Project will not have a significant impact rely on this “Project design feature,” which is clearly mitigation designed to address Project impacts. (3.16-93.) This analytical approach violates CEQA. Further, this mitigation was applied inconsistently between tables. For instance, Table 3.16-11 shows this mitigation would only improve traffic conditions on Cannon Street and Taft Avenue during morning hours, whereas Table 3.15-12 shows these improvements would only affect traffic flows during afternoon hours.

The City’s analysis of traffic impacts presents a shifting baseline or improperly assumes the implementation of mitigation measures the City has not made binding on the Project. According to the City, certain “Existing-with-Project” impacts actually decrease after implementation of the Project but prior to the implementation of mitigation measures. (See, e.g., Tables 3.16-11, 3.16-12.) The City arrives at this same conclusion regarding the 2040 scenario. (3.16-111.) This conclusion contradicts the evidence in the record, as the Project will add, not subtract, trips to all affected roadways.

The City’s analysis regarding the significance of Project impacts is contradicted by the information in the DEIR. While several intersections are shown to have services levels of LOS E or worse, yet all tables indicate Project impacts will be less than significant. (See, e.g., 3.16-97, 3.16-102 – 3.16-103.) The City states, although certain roadway segments “are forecast to operate at unacceptable LOS E and/or LOS F on a daily basis in the Year 2040 . . . , the proposed project . . . is expected to add less than 0.010 to the V/C ratio.” (3.16-111.) However, the City does not claim the Significance Threshold requires this or any project to single-handedly decrease LOS to unacceptable levels, and the City cites to no policy that would support this conclusion. Further, this entirely ignores the significance of cumulative Project traffic impacts.
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Please explain how Project impacts will be less than significant, despite the fact that the Project will contribute to and worsen these impacts. Please reference the threshold the City relies on when it states that a 0.010 V/C ratio increase is per se less than significant. This language appears nowhere in the significance thresholds advanced and discussed by the City in the DEIR. Please revise this analysis to ensure it accurately reflects and mitigates Project impacts.

The DEIR contains a list of “planned improvements.” (3.16-107.) However, it is unclear whether the Project will be required to contribute to these improvements. Please clarify whether the Project will contribute its fair share to these improvements and require this contribution as a mitigation measure.

Table 3.16-13 contains information that differs from the information contained in the other tables. This table indicates the Cannon and Taft intersection will operate at LOS F, whereas other tables indicate this intersection will operate at LOS E. Please explain the difference between the information in these tables.

The City provides an incorrect analysis of cumulative Project traffic impacts. The City erroneously states the Project would only cumulatively contribute to “one facility operating at deficient levels.” (4-12.) However, as mentioned above, the City’s analysis of traffic impacts indicates the Project will contribute to impacts to several intersections that are projected to operate at LOS E or worse. By the City’s own measure, this is a cumulatively significant impact the City was required to disclose and mitigate.

**Tribal Cultural Resources**

The City’s analysis regarding Impact TCR-2 is completely deficient. Impact TCR-2 addresses whether the Project would cause “a substantial adverse change in the significance of a tribal cultural resource.” (3.17-9.) Rather than reference the voluminous evidence in the record that shows tribal cultural resources have been found even on the surface of the Project site, the City instead reasons:

To date, the City of Orange has not received a tribal consultation request from any of the tribes and, therefore, there is no basis for the City to conclude that the project site supports tribal cultural resources.

(3.17-9.) This reasoning is entirely inadequate to support the City’s finding that Project impacts will be less than significant. The City cannot conclude there will be no impacts to tribal resources simply because no tribes responded timely to consultation. “No response” does not equate to “no resources,” especially with evidence in the record that shows the Project site was
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used by Native American tribes. The City must revise this analysis and mitigate impacts to tribal cultural resources accordingly.

Utilities

The City provides insufficient information regarding impacts to wastewater facilities (Impact USS-2). (3.18-10 – 3.18-11.) The City’s analysis does not address whether these wastewater facilities will have sufficient peak wet weather capacity to handle Project flows, combined with all other past, present, and reasonably foreseeable future flows. The City’s base statement that the Project will only represent 0.01 percent of the primary treatment capacity at these facilities would be significant if these facilities are at risk of experiencing sanitary sewer overflows either now or in the future.

For Impact USS-3, the City concludes the Project will not have a significant impact prior to mitigation. (3.18-11 – 3.18-12.) However, the City arrives at this conclusion by relying on Project design features that are really mitigation measures, including catch basins, detention basins, flow control structures, and flow monitoring. The City must provide an accurate evaluation of pre-mitigation Project impacts.

Alternatives

The City wrongly dismisses the Environmentally Superior Alternative. The City states this alternative:

would not advance following project objectives: transition of an infill site with a Specific Plan; developing logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists; and would not permit the Development Agreement benefits to the community. In addition, the Collaborative Group Alternative is not financially feasible.

(5-35.) The City’s dismissal of the Environmentally Superior Alternative is wrong for multiple reasons. For instance, the City dismisses this alternative because it does not include adoption of the Specific Plan that is entirely unique to the Project. The City’s analysis, thus, impermissibly narrows its consideration of Project alternatives, as only the Project could possibly meet this objective. Further, the City’s claims that the Project would not provide an internal circulation system for pedestrians, bicyclists, equestrians, and motorists, and is not financially feasible are all conclusory. Please provide a more accurate, fair, and detailed analysis explaining why this alternative is infeasible, as opposed to less financially desirable to the Project applicant.
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Energy Conservation

In a revised Energy Conservation section, please analyze the impacts of exporting cut and importing fill. (6-5.) Specifically, please evaluate whether there is any opportunity to reduce the number of these trips or the trip length.

Evidence in the record strongly suggests the Project promotes wasteful use of energy resources. The Project is two miles away from the nearest bus stop, and the City states there are no plans to extend services anywhere closer to the Project site. This means that the Project location makes public transportation options prohibitive and will heavily promote the use of personal vehicles. Despite this reality, the City fails to evaluate the distance of the Project site from commercial and job centers. Regardless, vehicle-miles traveled will be much higher for the Project than for most other projects closer to urban centers and public transportation options.

The City admits it will not require the Project to install rooftop solar panels on all or some of the Project housing, instead only requiring that these roofs be “solar ready.” This is not a mitigation measure, the vast majority of single-family housing built in California’s history is “solar ready.” The City’s failure to consider and require the installation of rooftop solar panels will result in lost energy savings and, thus, energy waste. This is all the more poignant because the next iteration of the California Building Codes, to be released in 2019, will require the installation of rooftop solar panels. This means that the California Building Commission has determined this feature is not only feasible but necessary. Please revise the DEIR’s evaluation of energy conservation to require universal installation of rooftop solar panels.

Conclusion

Southwest Carpenters thanks the City for providing an opportunity to comment on the DEIR. Pursuant to Section 21092.2 of the Public Resources Code and Section 65092 of the Government Code, Southwest Carpenters request notification of all CEQA actions and notices of any public hearings concerning this Project, including any action taken pursuant to California Planning and Zoning Law. In addition, pursuant to Public Resources Code section 21167(f), please provide a copy of each Notice of Determination issued by the City in connection with this Project and please add Southwest Carpenters to the list of interested parties in connection with this Project and direct all notices to my attention. Please send all notices by email, or if email is unavailable, by U.S. Mail to:
Robert Garcia, Senior Planner  
Re: Trails at Santiago Creek RDEIR  
December 31, 2018  
Page 23

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Very truly yours,  
WITTWER PARKIN LLP  

[Signature]  
Nicholas Whipps
Wittwer Parkin LLP (Wittwer_Parkin)

Response to Wittwer Parkin-1
Comment noted. The comment consists of a description of the project and introductory remarks that do not raise any comments or questions about the environmental analysis. The responses set forth below respond to all of the particular comments submitted in this letter.

Response to Wittwer Parkin-2
Please refer to Master Response 2—Adequacy of the Project Description, and Master Response 6—Stewardship of Open Space. OC Parks, the HOA, a conservancy, a non-profit, or another entity will be responsible for maintenance and management of the Specific Plan's open space. The project Applicant will enter into an agreement with the HOA, non-profit, public agency, conservancy, or similar entity, prior to approval of the Tentative Map for the project, to ensure that responsibility for construction of improvements and maintenance is adequately addressed. In the event the applicant conveys the open space grasslands and trails to OC Parks, the applicant will enter into an MOU with OC Parks prior to approval of the Tentative Map for the Project. The agreement will include a funding mechanism to ensure adequate funding of open space improvements and subsequent maintenance.

Response to Wittwer Parkin-3
As explained in the RDEIR, the project Applicant requests the approval of the draft Specific Plan. Once approved, the City of Orange shall monitor compliance with the adopted Specific Plan and mitigation measures during the Major Site Plan Review and Design Review processes. (The Trails at Santiago Creek Specific Plan, page 8-4.) Specifically, following the review and approval by the City of Orange of the Trails at Santiago Creek Specific Plan, a Tentative Tract Map will be submitted for Major Site Plan Review by the City in compliance with Section 17.10.060, Site Plan Review, of the City of Orange Municipal Code. Detailed plans for future implementing projects in the Trails at Santiago Creek Specific Plan area will be submitted to the City for Design Review approval, in accordance with the policies and procedures of the Orange Municipal Code Section 17.10.070, Design Review.

Response to Wittwer Parkin-4
Please refer to Master Response 8—Site Environmental Conditions, and Master Response 9—Soil Import/Export Numbers. Backfilling on the site was considered in the pre-development agreement and is properly included in the project description and accompanying analysis. The RDEIR fully analyzes potential impacts from backfilling.

The Proposed Site Plan includes an exhibit of the proposed residential land development configuration for the Trails Site. (RDEIR Section 2, Project Description, page 2-47, Exhibit 2-11.) The proposed grading will conform to this configuration. In the exhibit, note that a gap (tan color) is proposed along the property line between the existing landfill site and the proposed residential lots. On the Trails side of the property line, this gap is to be graded to match the existing grades along the property line and to accommodate the proposed drainage pattern as described in the Proposed Condition Hydrology Map, Appendix 7. On the Landfill side of the property line, the ground surface will not be disturbed by Trails Site surface grading or by Trails Site subsurface grading. The project will require a grading permit.
Response to Wittwer Parkin-5
As stated in the RDEIR, it is the intent of The Trails at Santiago Creek to provide a recreational trail system for the benefit of the community of Orange and the general public, as well as the project’s residential neighborhood. The intent of the trail system is to be an integral part of the City’s and County’s trail master plans via connectivity opportunities. (RDEIR Section 2, Project Description, page 2-61.)

To this end, the REIR states that the “project includes a variety of public multi-use recreation trails that will traverse the project site, providing shared use of hiking, biking, and horseback riding on decomposed granite trail surfaces.” (RDEIR Section 2, Project Description, page 2-61.) The RDEIR also provides a visual depiction of the conceptual location, extent, and number of trails included in the project in Exhibit 2-11: Preliminary Greenway, Open Space and Trails Plan. Additionally, the trails are described in detail in Section 2, Project Description, pages 2-50, 2-52, and 2-61. The Santiago Creek Trail is included in the discussion as Trail C. The conceptual plan and description of each trail provides sufficient detail for a complete discussion of the trail system.

The RDEIR explains that throughout the open space in Planning Areas A and B, a network of 10-foot-wide multi-use recreation trails will provide public access to the restored open space and the Santiago Creek environs. (RDEIR Section 2, Project Description, page 2-61.) The project’s trail system will connect to the existing Santiago Creek Trail along the northern boundary and on the west side at Cannon Street Trail access to the residential neighborhoods in PA-C will be via a number of trail paseos allowing for hiking and bicycling access, and via the Handy Creek Linear Park in PA-B. With the exception of Trail A (in Planning Area B paralleling East Santiago Canyon Road) and Trail F (in Planning Area B north of Planning Area C and with multiple uses as recreation trail, fuel modification maintenance and emergency vehicle access) final trail design, alignment and points of connectivity with existing and future adjacent trails will be accomplished through a collaborative effort involving the City of Orange, the Orange Park Acres Trail Committee, the Santiago Creek Greenway Alliance, Orange County Parks, and representatives of the Applicant. However, contrary to the commenter’s assertion, the RDEIR adequately describes and characterizes proposed trails. For a discussion of the detail required in an EIR, refer to Master Response 2—Adequacy of Project Description.

Response to Wittwer Parkin-6
Project impacts to biological resources are analyzed in detail in RDEIR Section 3.4, Biological Resources, subsection 3.4.6. A summary of total impacts to natural communities is shown in RDEIR Section 3.4, Biological Resources, Table 3.4-3 on page 3.4-48. The proposed project will impact the sensitive southern cottonwood-willow riparian forest, including 0.10 acre of on-site permanent impacts within the limits of grading, as well as 0.04 acre of permanent impacts, and 0.05 acre of temporary impacts due to installation of an on-site storm drain outlet. Impacts to special-status species (and their habitat) are analyzed in RDEIR Section 3.4, Biological Resources, subsection 3.4.6, pages 3.4-38 through 3.4-48. The proposed project will permanently impact less than 0.01 acre of federal wetland. Impacts to wetlands are adequately analyzed in RDEIR Section 3.4, Biological Resources, subsection 3.4.6, pages 3.4-51 to 3.4-52. As discussed, impacts would be less than significant with mitigation. Please refer to Response to SMW-38 and SMW-39 for further detail.
Response to Wittwer Parkin-7
The enhancements agreed to in the Development Agreement and identified on ES-5 and ES-6 are design features of the project and are analyzed as such throughout the RDEIR. Contrary to the commenter’s assertion, the project’s design features are not mitigation measures, nor are they required to be identified as mitigation measures. A feature built into the design or operation of a project that will reduce or avoid an environmental impact that might otherwise occur is not treated as a mitigation measure. (See, e.g., Wollmer v. City of Berkeley (2011) 193 Cal.App.4th 1329, 1352.) The project’s design features are appropriately analyzed as part of the project, since alternatives to the project would not be subject to the same development agreement terms.

Response to Wittwer Parkin-8
The commenter requests all required State approvals be listed in the EIR. All known and anticipated project approvals are listed in the RDEIR and the Specific Plan. RDEIR Section 2, Project Description, subsection 2.5.2, identifies those State and federal agencies that may be required to grant approvals or coordinate with other agencies. The RDEIR discusses the potential approvals that may be required of each of these agencies in the relevant impact discussions.

Response to Wittwer Parkin-9
The Rio Santiago Project, contemplated in 2013, proposed more intensive land uses than the current project, including a 395 residential units and a YMCA-type facility with outdoor swimming pools, an Autism Center, sports courts, and playfields. The RDEIR is not required to analyze or disclose the City’s previous decision not to approve the Rio Santiago Project. All environmental impacts of the project are analyzed in the RDEIR. A comparison to analysis and impacts of the Rio Santiago Project is not required or warranted.

Response to Wittwer Parkin-10
The baseline condition includes 30 days of rock crushing trips per year because the rock crushing operation would reoccur approximately 30 days throughout the year. Therefore, it is unnecessary to evaluate rock crushing 365 days per year as the baseline condition, as suggested by the commenter. However, as discussed in the RDEIR, the site’s current grading permit allows backfilling operations to occur year-round. Should entitlement of the project not succeed, the property owner reserves the right to resume all rock crushing operations consistent with the Sand and Gravel zoning and grandfathered uses of the property, which would not require environmental review.

Response to Wittwer Parkin-11
Project impacts related to aesthetics are analyzed in detail in RDEIR Section 3.1, Aesthetics, Light and Glare. As stated on page 3.1-8 of the RDEIR, the only portion of the project site that could be considered a scenic vista is the Santiago Creek Trail along the north bank of Santiago Creek. (The trail passes through several heavily vegetated areas, which limits viewpoint opportunities.) The balance of the project site is closed to public access and secured with a fence. A greenway would be established along the creek corridor and the undeveloped land along the north bank of the creek would be permanently protected as open space. Thus, scenic views from the Santiago Creek Trail would not be affected by the project. As requested by the commenter and in order to clarify the impact analysis contained in the RDEIR, an exhibit showing views of the project site from the trail is provided in Section 4, Errata, of this Final EIR.
Response to Wittwer Parkin-12
The RDEIR evaluates whether the loss of trees may result in a significant aesthetic impact. The discussion regarding Impact AES-2 explains that there are 323 trees located on the project site, and that while development of the project would change the character of approximately 40.7 acres of the project site to residential uses, these changes would not result in a significant impact because of the extensive remaining open space and preserved greenway (RDEIR Section 3.1, Aesthetics, Light, and Glare, page 3.1-9). Further, the RDEIR explains that the project would be consistent with City policies related to aesthetics and that the proposed project would follow the City of Orange Tree Preservation Ordinance by replacing any removed trees in a no-less-than 1:1 ratio. (RDEIR Section 3.1, Aesthetics, Light, and Glare, page 3.1-2.) As discussed in the RDEIR, compliance with the City’s Tree Preservation Ordinance would result in less than significant impacts. Further discussion of on-site trees is also found in Section 3.4, Biological Resources.

Response to Wittwer Parkin-13
The statement in the RDEIR that “[o]ther areas of the Code related to aesthetics are not applicable to the proposed project . . .” illustrates that there are no other areas of the Municipal Code that are relevant to this project. As explained in the RDEIR, the Residential Infill Guideline does not apply to the proposed project because the proposed project is a subdivision consisting of more than four lots. Additionally, the proposed project includes a Specific Plan, which provides for the systematic development of the project consistent with the existing community and in accordance with the Planning Community Zoning. Contrary to the commenter’s assertion, the aesthetics discussion is not based upon a hypothetical approved project scenario as the baseline. The baseline is existing conditions. The analysis simply states that the Specific Plan will create design standards that meet the Planning Community Zoning standards.

Response to Wittwer Parkin-14
Change in the visual character alone does not demonstrate a potentially significant impact. The discussion in impact AES-2 relating to visual character and quality is based on several factors. The aesthetics analysis discusses how the project would change the existing visual character of the site from a rock and concrete materials recycling and backfilling operation into an environmentally enhanced, ecologically friendly open space environment with well-planned and attractive single-family detached residential neighborhood. The analysis recognizes that the approximately 109-acre site contains already disturbed, undeveloped land that previously supported mining activities. Under the project, 69.2 acres, the majority of the site, would be enhanced and maintained as open space. The RDEIR also notes that residential uses are adjacent to the project site and that the project’s own residential development would be consistent with the existing residences, demonstrating that introducing similar residential uses will not substantially degrade the existing environment. Moreover, the discussion notes that the residential uses would only occupy 40.7 acres in the southern and western portion of the site, coinciding with the former mining area and an oval-shaped raised pad. After discussing these elements of the project, the analysis concludes that the project would not substantially degrade the existing visual character of the site or its surroundings. The commenter does not provide any evidence to substantiate the opinion that the project would impact views from Santiago Creek and East Santiago Canyon Road, while the RDEIR provides ample analysis to support the conclusion that the project would not substantially degrade the existing visual character of the site or its surroundings.
Response to Wittwer Parkin-15
Contrary to the commenter’s assertion, and according to the SCAQMD Air Quality Analysis Handbook, the only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same, absent the HI significance threshold. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. No revisions to the analysis are necessary.

Response to Wittwer Parkin-16
See Response to Comment Wittwer Parkin-15. The commenter cites provisions of the CEQA Guidelines but does not provide specific suggestions or direction on how the commenter believes the analysis should be revised. The analysis of project specific and cumulative air quality impacts is technically adequate and does not require revisions.

Response to Wittwer Parkin-17
The potentially significant impacts in the DEIR are based on regional oxides of nitrogen (NOx) emissions during construction activities and diesel PM exhaust that could result in a potential health risk during construction activities. Mitigation Measure AIR-1g would require the use of Tier 4 engines for on-site equipment, which would reduce both NOx and PM exhaust emissions. The determination in the RDEIR that project impacts are significant and unavoidable regarding NOx is due to the use of Tier 4 Final engines, which would reduce NOx emissions but would not reduce NOx emissions below the threshold. Therefore, impacts remain significant and unavoidable for NOx. This conclusion that the project’s impact is unavoidable applies only to NOx.

Response to Wittwer Parkin-18
See Response to Comment SCAQMD-7. Since NOx emissions are significant and unavoidable with the use of Tier 4 Final engines, the use of lower tier engines, even in limited use, would not change the findings in the EIR.

Response to Wittwer Parkin-19
Please see Master Response 9—Soil Import/Export Numbers. As the commenter notes, the project would generate 275,400 haul trips. Further, the RDEIR indicates that “the project would require up to 275,400 haul trips during the 1.5-year grading period,” resulting in approximately 700 trips per day. For a response to the commenter’s question about the baseline for rock crushing, please refer to Response Wittwer Parkin-10 above.

Response to Wittwer Parkin-20
RDEIR Section 3.3, Air Quality, Tables 3.3-8 and 3.3-9 both included estimates of VOC and NOx emissions, the components of ozone, and compare those emissions to the recommended thresholds. Since ozone is a regional pollutant that is based on a mixture of pollutants and sunlight, it is not possible to estimate ozone impacts at a project level and no such thresholds exist for the purposes of a CEQA analysis. Appendix F to the RDEIR includes emission estimates consistent with the information in the referenced tables. The data for Table 3.3-1 is typically delayed and not available until the middle of the following year. Therefore, the data for 2017 is now available, but the data for 2018 will not be
available until sometime later in 2019. As a clarification to the information presented in the RDEIR, the table will be revised in the Final EIR (FEIR) to include data for the year 2017.

Response to Wittwer Parkin-21
As discussed in Impact AIR-2, the project would import approximately 877,000 cubic yards of new material, and remove 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10 cubic yards per load (plus the return of one empty truck). Based on this information, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period. Haul truck emissions were included in the analysis of regional emissions. Therefore, contrary to the commenter’s assertion, hauling trips were accounted for in the Air Quality Analysis conducted for the project and construction impacts were not underestimated. As discussed in the Impact AIR-4, the RDEIR already includes a health risk assessment that evaluates both on-road and off-road emissions sources.

Response to Wittwer Parkin-22
The LST analysis only considers localized emissions, and it would not be appropriate to include the entire length of vehicle trips and all mobile source emissions in the localized analysis. As shown in RDEIR Section 3.3, Air Quality, Table 3.3-12, the maximum daily disturbed acreage is 4 acres. Therefore, LSTs for a 2-acre site and a 5-acre site were obtained and interpolated to determine an appropriate threshold to measure localized construction impacts.

Response to Wittwer Parkin-23
RDEIR Appendix G (Biological Resources Assessment) contains thorough tables of special-status plant and wildlife species that include site-specific information and whether the species was observed, has the potential to occur, or is not expected to occur on-site. Habitat assessments and observations of special-status species were based on multiple years of extensive focused protocol surveys conducted from 2010 through 2017, as summarized in RDEIR Appendix G (Biological Resources Assessment) (refer to pages 26 through 28).

Impacts to special-status species (and their habitat) are analyzed in RDEIR Section 3.4, Biological Resources, subsection 3.4.6, pages 3.4-38 through 3.4-48. This section of the RDEIR discusses at length whether suitable habitat occurs on-site to support special-status species, whether these species were observed on-site during extensive surveys, and whether project impacts were found to be significant for species that were present or have the potential to occur on-site. The RDEIR biological surveys and discussion of project impacts to those biological resources is sufficient to identify the presence of special-status species at the level of accuracy and clarity required under CEQA. The commenter’s opinion that there is not sufficient detail to determine impacts and that there have been “numerous sightings” of species on the project site is unsupported by evidence or details and therefore cannot be addressed.
Response to Wittwer Parkin-24
Please see response to Wittwer Parkin-23. A list of all potential species is provided in the EIR.

Response to Wittwer Parkin-25
As stated in RDEIR Section 3.4, Biological Resources, pages 3.4-45 through 3.4-48, if project construction is scheduled to occur within the nesting season, Mitigation Measure BIO-2d requires that a survey for nesting birds be conducted prior to construction activities. If nesting birds are found, a buffer of at least 300 feet (500 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete, or as determined appropriate by the biological monitor.

Residential lighting will be shielded away from Santiago Creek, and light and glare impacts to birds will be reduced to less than significant levels with implementation of the proposed project design features listed on page 3.4-43 of the RDEIR, and Mitigation Measure MM Bio-2a (including the provisions of BMP 7 relating to lighting).

As stated in Mitigation Measure BIO-2a (RDEIR Section 3.4, Biological Resources, page 3.4-45):

Prior to the issuance of any grading permit for areas supporting least Bell’s vireo habitat (such as southern cottonwood-willow riparian forest), the project applicant shall obtain federal and State take authorizations via regulatory permits (such as a CWA Section 404 permit issued by the USACE), which will require that the USFWS be consulted as provided for by Section 7 of the FESA (for the federally listed least Bell’s vireo). The federal regulatory permits (such as CWA Section 404 permit issued by the USACE) provide a “federal nexus” by which Section 7 consultation can occur. This statute imposes the obligation on federal agencies to ensure that their actions (such as issuing federal CWA permits for this project) are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its designated critical habitat. This obligation is enforced through the procedural requirement that agencies such as the USACE initiate consultation with the USFWS on any actions that may affect a threatened or endangered species. During the FESA Section 7 consultation anticipated for this project, the USFWS will gather all relevant information concerning the proposed project and the potential project-related impacts on the least Bell’s vireo (i.e., the project applicant will submit a species-specific Biological Assessment), prepare its opinion with respect to whether the project is likely to jeopardize the continued existence of the species (i.e., the USFWS will issue a Biological Opinion), and recommend mitigation/conservation measures where appropriate. Additionally, the need for State regulatory permits (i.e., Fish and Game Code Section 1602 Streambed Alteration Agreement issued by the CDFW) will require a Consistency Determination from the CDFW for the State-listed least Bell’s vireo under CESA.

No unauthorized take will occur. The remainder of Mitigation Measure BIO-2a includes BMPs that will ensure that indirect impacts will not occur to least Bell’s vireo within 300 feet of occupied habitat. Mitigation Measure BIO-2b requires habitat mitigation (on- or off-site restoration or enhancement of least Bell’s vireo habitat at a ratio no less than 3:1 for permanent grading impacts) and Mitigation Measure BIO-2c requires construction, grading, and fuel modification activities to take place outside of
the least Bell's vireo nesting season to the greatest extent feasible. If this is not possible, measures are included to ensure that impacts to least Bell’s vireo remain less than significant.

Contrary to the commenter’s assertion, there is sufficient evidence in the RDEIR to support a finding that mitigation will reduce impacts to species to a less than significant level.

Response to Wittwer Parkin-26
As stated in RDEIR Section 3.4, Biological Resources, subsection 3.4.6, page 3.4-39, no coastal California gnatcatcher were observed on-site during focused surveys conducted by MBA in 2008; PCR in 2010, 2012, 2013, 2015; and ESA in 2017. The preferred habitat of the coastal California gnatcatcher is coastal sage scrub, and the proposed project will not impact any coastal sage scrub habitats.

As the RDEIR notes, however, individual incidental sightings of coastal California gnatcatcher occurred in 2010, 2014 and 2017. Contrary to the comments, the basis for the determination that these sightings were incidental is fully explained in RDEIR Section 3.4, Biological Resources, page 3.4-39. Although the incidental sightings of coastal California gnatcatcher were in disturbed/non-native herbaceous cover or within disturbed areas perched on mule fat, and not coastal sage scrub, if these areas were used for foraging and/or dispersal, the areas of Santiago Creek and native habitats that will be avoided by the proposed project north of the drainage will continue to provide higher quality habitat (including coastal sage scrub dominated by California sagebrush), which provide resources for foraging and connectivity to other open space areas for dispersal (e.g., to Santiago Oaks Regional Park to the east). As such, no significant impacts will occur to the coastal California gnatcatcher. The comment that the significance of habitat or impacts is downplayed is unsubstantiated.

Response to Wittwer Parkin-27
RDEIR Section 3.4, Biological Resources, page 3.4-44, stated that willow flycatcher is listed by the State as Endangered. To clarify, as stated in RDEIR Section 3.4, Biological Resources, subsection 3.4.6, page 3.4-44, the willow flycatchers that were observed during the 2012 survey were found in two locations. Two willow flycatchers were observed within the black willow scrub/ruderal community that borders the fallow field in the eastern portion of the project site. The habitat within which these willow flycatchers were observed is considered unsuitable as potential nesting habitat; therefore, it is assumed that both birds were migrants passing through the area, and are not the southwestern willow flycatcher subspecies. One willow flycatcher was observed within southern cottonwood-willow riparian forest within the north-central portion of the project site. The habitat within which this willow flycatcher was observed is considered suitable for nesting; however, no breeding willow flycatchers were observed during the focused surveys for the species.

The proposed project would impact habitat suitable to support the willow flycatcher. Although the black willow scrub/ruderal will be permanently removed, this isolated stand of willows provides only a small, limited amount of foraging habitat for this species. The riparian habitat within Santiago Creek that will be avoided by the proposed project will still be available to provide a greater area of contiguous habitat for foraging opportunities, and impacts to potential willow flycatcher foraging habitat are not expected to threaten regional populations of this species and are therefore less than significant.
For the limited amount of southern cottonwood-willow riparian forest that could be used for nesting habitat, which will be impacted by the installation of an on-site storm drain outlet, temporary impacts will be restored to pre-project conditions; therefore, impacts are less than significant.

Contrary to the commenter’s opinion, there is adequate analysis of impacts to the willow flycatcher. Impacts are less than significant.

**Response to Wittwer Parkin-28**

Edge effects associated with the proposed project are discussed in Appendix G (Biological Resources Assessment, pages 93 to 94). A 150-foot limited use setback area is proposed as a project design feature that will provide a buffer between the development and the wildlife movement corridor to minimize edge effects. In addition, the USFWS will be required to be consulted to ensure that actions are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its designated critical habitat. Moreover, the project requires Mitigation Measure BIO-2c, which would require all construction activities to occur outside of the least Bell’s vireo breeding season to the extent feasible. If any activities are required to occur during the breeding season, activities would be required to maintain a separation distance of 300 feet from least Bell’s vireo habitat, as monitored by an on-site biological specialist. With implementation of mitigation, the project would not impact least Bell’s vireo habitat. Contrary to the commenter’s statement, the RDEIR fully evaluates impacts to this species.

Least Bell’s vireo is thoroughly analyzed and project design features and mitigation measures are proposed to minimize direct and indirect permanent and temporary impacts to this species, as discussed in RDEIR Section 3.4, Biological Resources, subsection 3.4.6, pages 3.4-40 through 3.4-48.

**Response to Wittwer Parkin-29**

Contrary to the commenter’s statement, the RDEIR did not include that impacts to 100 southern tarplant individuals would result in a per se less than significant impact. As discussed in the RDEIR, impacts to less than 100 southern tarplants are not expected to threaten regional populations of this species, which consist of tens of thousands of plants within the Orange County region. As described in RDEIR Section 3.4, Biological Resources, page 3.4-11, the project Applicant salvaged the southern tarplant seed in 2010, 2013, and 2015. The southern tarplant seed was processed and stored at Rancho Santa Ana Botanic Garden (RSABG). A portion of the seed was donated to RSABG’s permanent conservation collection and a portion of the remaining seed was donated to Newport Banning Land Trust for restoration purposes. This Conservation Measure was already applied and implemented in order to prevent loss of this local population due to current on-site activities related to existing backfilling and material recycling operations, which are not related to the proposed project. The remainder of the salvaged southern tarplant seed will be relocated and sown on- and/or off-site within the open space areas to be avoided and preserved. As such, impacts to southern tarplant associated with the implementation of the proposed project are considered less than significant since impacts are not expected to threaten regional populations. Contrary to the commenter’s assertion, the loss of 100 individual southern tarplants would not result in a significant impact.
Responses to Written Comments

Response to Wittwer Parkin-30
Domestic pets are owned by the current area residents, and the special-status species found on-site still persist. While the proposed project may introduce domestic pets closer to open space areas, Orange County Ordinance Section 4-1-45 states that no person owning or having charge, care, custody, or control of any dog shall cause or permit, either willfully or through failure to exercise due care or control, any such dog to be upon any public property unless such dog be restrained by a substantial chain, or leash not exceeding 6 feet in length, and is under the charge of a person competent to exercise care, custody, and control over such dog. Therefore, domestic dogs would not be anticipated to impact California coastal gnatcatcher and least Bell’s vireo. In addition, the proposed residential portion of the project would be located in the southern portion of the site, which is removed from the coastal gnatcatcher and least Bell’s vireo habitat. As discussed in the RDEIR, habitat for California coastal gnatcatcher and least Bell’s vireo would be protected by the project through design features and mitigation measures and impacts would be less than significant.

Response to Wittwer Parkin-31
To clarify, direct impacts to the prairie falcon are considered less than significant because no active nests were observed and no suitable nesting habitat for the species is present on-site (or within a 0.5-mile radius of the project site), as discussed in RDEIR Section 3.4, Biological Resources, page 3.4-40. Contrary to the commenter’s assertion, both direct and indirect impacts to suitable foraging habitat were analyzed in the RDEIR are considered less than significant due to the limited amount of impacts that would occur to native habitat that is suitable for foraging, and the abundance and relative availability of foraging habitats in the project vicinity, including the native habitats that will be preserved as open space upon project completion.

Response to Wittwer Parkin-32
The three measures listed in RDEIR Section 3.4, Biological Resources, on page 3.4-37 and the nine measures listed on page 3.4-43 are proactively incorporated into the project as project design features, and will be required project components. Contrary to the commenter’s statement, these design features are a part of the project and are not mitigation measures. A feature built into the design or operation of a project that will reduce or avoid an environmental impact that might otherwise occur is not treated as a mitigation measure. (See, e.g., Wollmer v. City of Berkeley, supra, 193 Cal.App.4th 1329, 1352.)

Response to Wittwer Parkin-33
“Occupied habitat” means the habitat where least Bell’s vireo has been observed or is known to reside, as well as the contiguous riparian habitat on-site. The mitigation measure referenced by the commenter (Mitigation Measure BIO-2a) does not specify the duration of monitoring (e.g., full-time, part-time, spot checks); rather, it requires monitoring to ensure indirect impacts will not occur to the least Bell’s vireo, which will be based on the recommendations of the qualified biological monitor and will therefore be more effective than a measure specifying duration of monitoring prior to completion of pre-construction surveys. As requested by the commenter, there will be a qualified biological monitor on-site if any construction, grading, and fuel modification activities are required during the breeding season within 300 feet of potential least Bell’s vireo habitat (Mitigation Measure BIO-2c).
Response to Wittwer Parkin-34
The comment that daytime construction would worsen construction impacts is speculative and unsupported by evidence. As discussed in the RDEIR, construction impacts would be less than significant with incorporation of mitigation, so there is no need to analyze possible impacts of conducting construction during the nighttime. The limiting of construction to daylight hours is intended to minimize noise impacts on both wildlife and nearby residents. Daytime noise is greater than nighttime noise and consequently construction noise during the day is relatively less noticeable. Additionally, nighttime construction activities would contribute to unnecessary lighting impacts.

Response to Wittwer Parkin-35
Noise-related mitigation measures are intended to protect a variety of sensitive receptors (e.g., human, avian), and the project will have to comply with all mitigation measures pertaining to minimizing noise impacts. Contrary to the commenter’s assertion, Mitigation Measure BIO-2a does not conflict with other mitigation measures. Directing noise away from biological and human sensitive receptors can be accomplished simultaneously, particularly on a large site such as the project site. The commenter does not provide any evidence for the proposition that mitigation to direct construction equipment away from biological sensitive receptors would contradict mitigation to direct construction equipment away from human sensitive receptors.

Response to Wittwer Parkin-36
As requested by the commenter, the RDEIR provides sufficient discussion regarding tree impacts and discloses conditions that will be required for the project. The City’s Tree Preservation Ordinance requires a 1:1 replacement ratio for trees that will be removed, in which the project will comply. No additional mitigation is required, since compliance with this existing regulation required by the City will offset impacts to trees. This is discussed in RDEIR Section 3.4, Biological Resources, pages 3.4-58 to 3.4-61.

Response to Wittwer Parkin-37
Contrary to the commenter’s assertion, the RDEIR does not simply conclude that the cumulative biological resources impacts are less than significant because the project’s biological resources impacts are less than significant, but conducts an analysis of the potential cumulative impacts of the project combined with other projects to determine that cumulative biological resource impacts are less than significant. As stated in RDEIR Section 4, Cumulative Effects, page 4-4, “The proposed project has the potential to have a significant impact on the least Bell’s vireo and nesting birds. Mitigation Measures BIO-2a through BIO-2d are proposed, requiring pre-construction surveys for these species and implementation of protection measures if they are found to be present. Some of the other projects listed in Table 4-1 are located on sites with similar biological attributes and, therefore, would be required to mitigate for impacts on special-status wildlife species in a manner similar to the proposed project.” Implementation of the required mitigation would reduce the project’s contribution to any significant cumulative impact on special-status wildlife species and the project contribution would not be cumulatively considerable, as none of these species are expected to drop below a sustainable level.

In addition, Mitigation Measure BIO-2b would require that for permanent grading impacts to least Bell’s vireo habitat, on-site or off-site restoration or enhancement of least Bell’s vireo habitat would
occur at a ratio no less than 3:1. Thus, with implementation of Mitigation Measure BIO-2b, there will be a net increase in habitat to support the least Bell's vireo, and cumulative impacts to this species would not be cumulatively considerable and therefore are considered less than significant.

Response to Wittwer Parkin-38
The commenter notes a typographical error in Mitigation Measure CUL-2. Mitigation Measure CUL-2 has been revised as follows:

If the find is determined to have archaeological or paleontological significance, the procedures in Mitigation Measure CUL-1 or Mitigation Measure CUL-3 shall be implemented. Monitoring may cease once all of the areas depicted in Exhibit 3.5-1 have been thoroughly disturbed.

This correction will be included in Section 4, Errata, of this Final EIR.

Response to Wittwer Parkin-39
The commenter states an opinion that Mitigation Measure CUL-3 is deficient because it is triggered if subsurface excavations exceed depths of 15 feet below the surface. It is unclear why the commenter believes this Mitigation Measure is deficient. The commenter portrays this provision as a deficiency in the RDEIR Project Description, claiming that the EIR must state whether project excavation will reach this depth. Excavation may reach 15 feet, and for that reason, the mitigation measure is set forth. Disclosing that excavation may reach this depth is consistent with CEQA’s requirements that an EIR project description include a “general description” of the project’s characteristics. An EIR is not required to disclose design-level details such as the precise depth of excavation.

Response to Wittwer Parkin-40
Under CEQA, it is proper to require, as mitigation, that a site-specific study will be conducted in the future and performance measures will subsequently be incorporated based on the site-specific study, when, as here, it would be premature to conduct a design-level report because the specific design, location, and footprint of the proposed residential structures has not been finalized. (See, e.g., POET, LLC v. State Air Resources Bd. (2013) 218 Cal.App.4th 681, 735.) Therefore, it is practical and appropriate to prepare this report when this specific information is available to ensure the most effective performance measures are incorporated into the development. Accordingly, Mitigation Measure GEO-1 requires the Applicant to submit a design-level geotechnical report to the City of Orange for review and approval prior to proceeding with development consistent with the performance criteria identified in the Specific Plan. The investigation must be prepared by a qualified engineer and identify grading and building practices necessary to achieve compliance with the latest adopted edition of the California Building Standards Code’s geologic, soils, and seismic requirements. The measures identified in the approved report must also be incorporated into the project plans.

Response to Wittwer Parkin-41
See Response to Wittwer Parkin-40. Geology and Soils are discussed extensively in RDEIR Section 3.6, Geology and Soils.
Response to Wittwer Parkin-42
RDEIR Appendix F erroneously included air quality modeling results that were inconsistent with tables in the Air Quality Section of the RDEIR. Section 4, Errata, of this Final EIR provides updated modeling results that are consistent with the modeling results presented in the RDEIR Air Quality Section. All detailed modeling and assumptions, which support the analysis and conclusions in the RDEIR Air Quality Section, are included in the appendix.

Response to Wittwer Parkin-43
See Response to Comments SMW-50. The RDEIR did not rely on a baseline of rock-crushing traffic year-round. As discussed in RDEIR Section 3.7, Greenhouse Gas Emissions, the SCAQMD recommends several options for GHG emissions, including 3,500 MT CO₂e per year for residential and 3,000 MT CO₂e per year for mixed use. Because the development portion of the project is residential, SCAQMD’s residential threshold is appropriate for the project. However, even the lower threshold of 3,000 MT CO₂e per year suggested in the comment would not be exceeded by the project. The specific information requested by the commenter, such as operational mobile greenhouse gas emissions values, are included in RDEIR Section 3.7, Greenhouse Gas Emissions.

Response to Wittwer Parkin-44
Contrary to the commenter’s assertion, the discussion of impacts under Impact GHG-2 is not inadequate. The City has not yet adopted a GHG reduction plan against which the project can be evaluated. In addition, the City has not completed the GHG inventory, benchmarking, and goal-setting process required to identify a reduction target and to take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97. Since no other local or regional climate action plan is in place, the project is assessed in the RDEIR for its consistency with the ARB’s adopted AB 32 2008 Scoping Plan.

Although the City of Orange General Plan does not meet the CEQA Guidelines 15064.4(b)(3) requirements for an applicable plan to reduce GHG emissions, it contains policies intended to reduce vehicle travel and energy use that would provide GHG reductions. Therefore, the project’s consistency with the General Plan policies is also assessed in the RDEIR.

Contrary to the commenter’s statement, the analytical approach in the RDEIR was not invalidated in Center for Biological Diversity v. California Department of Fish and Wildlife (2015) 62 Cal.4th 204. In fact, the Court in Center for Biological Diversity noted that a discussion of project consistency with the State’s long-term climate stabilization objective is appropriate under CEQA when the analysis is tailored specifically to a particular project, which was accomplished in the RDEIR. Moreover, the project discussed consistency with the ARB’s Scoping Plan as well as the City’s policies intended to reduce vehicle travel and energy use that would provide GHG reductions. The project’s GHG analysis and conclusions are legally and technically adequate.

Response to Wittwer Parkin-45
Please see Master Response 8—Site Environmental Conditions. As discussed in Master Response 8, the project will be required to conduct a supplemental Phase II ESA for the property, which will be reviewed by the DTSC, to update the previous environmental site assessments as necessary.

Response to Wittwer Parkin-46
Contrary to the commenter’s assertion, the RDEIR does not conclude that impacts regarding hazardous materials within 0.25-mile of a school are less than significant because proposed uses
would not involve handling hazardous substances **routinely**. Rather, the discussion indicates that the proposed project would develop residential, open space, and recreational uses on the project site, and these uses are not associated with activities that involve handling hazardous substances. No hazardous materials are expected to be handled for the proposed uses. As noted in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-11, impacts are less than significant.

**Response to Wittwer Parkin-47**
The RDEIR states that the proposed project would not modify any surrounding roadways in a manner that could impair emergency response or evacuation. It specifically states that there would be no road closures or lane narrowing. (RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15.)

**Response to Wittwer Parkin-48**
Please see Master Response 5—Wildfire Risk.

**Response to Wittwer Parkin-49**
Please see Master Response 4—Dam Safety and Risk of Failure.

**Response to Wittwer Parkin-50**
The comment is conflating two separate and distinct elements of Impact HYD-3.

a) **Element No. 1, Handy Creek Storm Drain**: The sentence “The project would achieve no net increase discharge [sic] of stormwater into the Handy Creek Storm Drain during storm events.” appears in the paragraph in the middle of page 3.9-24, following Table 3.9-6, but preceding Table 3.9-7. This paragraph pertains only to the existing Handy Creek storm drain, which is an existing feature that lies in the center of the project site. Additionally, Table 3.9-7 pertains only to the existing Handy Creek storm drain.

b) **Element No. 2, Detention Basin Outlet**: The phrase “riprap and an energy dissipator” appears in the paragraph at the top of the page 3.9-24, preceding Table 3.9-6. This sentence pertains only to the outlet of the proposed detention basin that is described in the last paragraph on page 3.9-23. The storm drain outlet from the detention basin is a proposed feature that will be placed at the westerly end of the site. The riprap is to be placed at the downstream end of the detention basin storm drain outlet to Santiago Creek. Riprap placement is a universally accepted method of flow regulation.

The RDEIR discussion is adequate and refers to Appendices 2, 3, and 5 within the Hydrology Report in Appendix K of the RDEIR for calculations compiled via AES Hydrology Software and HydroCAD Detention Modeling Software.

**Response to Wittwer Parkin-51**
See Master Response 1—Plan Consistency. Contrary to the commenter’s assertion, a project that requires a General Plan amendment does not impermissibly evaluate project consistency with the General Plan by concluding that with implementation of the General Plan Amendment, the project will be consistent with the General Plan.

**Response to Wittwer Parkin-52**
Please see Master Response 1—Plan Consistency.
Response to Wittwer Parkin-53
The RDEIR does not fail to disclose any relevant information regarding the designation of the project site. There is no General Plan prohibition on redesignating land identified as Resource Area, nor is there any requirement to quantify the percentage of land identified by any category. The RDEIR clearly states that a portion of the project site is designated Resource Area (RA) (77.3 acres). (RDEIR Section 2, Project Description, page 2-12, Exhibit 2-6, and RDEIR Section 3.3, Air Quality, page 3.3-28). The proposed project involves the development of up to 128 dwelling units on approximately 40.7 acres within the area designated “Resource Area” and the preservation of the remaining 68.5 acres (which overlap with the “Resource Area” and “Low Density Residential” designations) as open space and recreation uses. Accordingly, the Applicant is proposing to change the “Resource Area” designation to a combination of “Low Density Residential,” and “Open Space,” and the “Low Density Residential” designation to “Open Space.” This serves to preserve the majority of the site as “Open Space.” It is within the City’s discretion to determine the most beneficial designation for the project site via the requested General Plan amendment.

Response to Wittwer Parkin-54
See Response to Wittwer Parkin-51 and 53 above. It is within the City’s discretion to find that an approved zone change would bring the project into compliance with the Zoning Code and reduce impacts to below a level of significance. The fact that a project requires a zone change does not prohibit a finding of less than significant with land use regulations.

Response to Wittwer Parkin-55
The project’s consistency with the Orange County Central and Coastal Subregion Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) (RDEIR Section 3.4, Biological Resources, Exhibit 3.4-6) is discussed in detail in RDEIR Section 3.4, Biological Resources, starting at page 3.4-28 and in both Impact BIO-7 and RDEIR Section 3.10, Land Use, Impact LUP-3.

Response to Wittwer Parkin-56
The commenter indicates that the construction noise analysis contained in the RDEIR did not quantify construction noise impacts. However, RDEIR Section 3.12, Noise, page 3.12-21 identifies the closest sensitive receptors and quantifies the reasonable worst-case maximum noise levels that could occur during the loudest phase of construction, the site preparation phase, when the heaviest types of construction equipment would operate.

The commenter further indicates that the construction noise analysis did not disclose whether construction noise would exceed hourly or daily noise thresholds set by the City. However, as discussed in the RDEIR, the City does not have hourly of daily noise thresholds for construction. Rather, in accordance with Section 8.24-070 of the Municipal Code, as shown in RDEIR Section 3.12, Noise, page 3.12-16, construction noise is exempt from the noise performance standards of the Municipal Code provided these activities do not take place between 8:00 p.m. and 7:00 a.m. on weekdays, including Saturdays, or at any time on Sundays or a federal holiday. Mitigation Measure NOI-1a includes these restrictions on permissible hours of construction, along with best management noise reduction measures. Therefore, the analysis does provide a quantitative analysis of reasonable worst-case construction noise levels and ensures that the construction noise complies with the applicable noise standards of the City’s Municipal Code.
The commenter indicates that the construction noise analysis segments construction haul trip noise impacts from other construction activity noise impacts. However, the construction noise analysis quantifies the reasonable worst-case construction noise levels of the project construction. Noise levels from construction haul trips would be more than 10 dBA below the reasonable worst-case construction noise levels identified for the site preparation phase of construction. A characteristic of noise is that combining noise levels that are 10 dBA or greater in difference does not result in any increase. Therefore, as stated in the analysis, the construction noise impact analysis quantified the reasonable worst-case construction noise levels and provided mitigation to reduce any potential impacts to a level that is less than significant.

Response to Wittwer Park in-57

The commenter indicates that project-related traffic noise impacts to off-site receptors are not identified, and that project-related traffic noise levels that result in an exceedance of 65 dBA community noise equivalent level (CNEL) as measured at any off-site receptor would automatically be a significant impact. However, as indicated in RDEIR Section 3.12, Noise, page 3.12-43, in accordance with the City’s standards, project-related traffic noise impacts to off-site receptors would occur under the following conditions:

In order for off-site roadway noise impacts created by the proposed project’s operations to be considered significant, the proposed project would need to increase the noise levels on a residential or school land use above 65 dBA CNEL where the without project noise level is below 65 dBA CNEL, or by (1) 5 dBA CNEL where the without project noise level is less than 65 dBA CNEL, or (2) 3 dBA CNEL where the without project noise level is greater than 65 dBA CNEL. A significant impact would also occur if the proposed project provides any increase to a residential or school use that already exceeds 75 dBA CNEL.

As shown in Tables 3.12-12 through 3.12-14 in RDEIR Section 3.12, Noise, project-related traffic noise increases at modeled receptors in the project vicinity would range from 0.0 to 0.1 dBA CNEL, which is below the 5 dBA increase threshold for roadways that have without-project traffic noise levels below 65 dBA CNEL. It is also below the 3 dBA increase threshold for roadways that have without-project traffic noise levels that exceed 65 dBA CNEL. In every modeled traffic scenario, no additional roadway segments would exceed the City’s residential or school noise standard of 65 dBA CNEL when compared to traffic noise conditions that would exist without the project. In addition, no modeled receptor location would experience traffic noise levels that exceed the 75 dBA CNEL maximum noise exposure level. Therefore, the analysis clearly shows that implementation of the project would not result in a substantial permanent increase in traffic noise levels compared to levels that would exist without the project, and project-related traffic noise levels would not exceed the City’s thresholds. Therefore, as concluded in the RDEIR, project-related traffic noise impacts to off-site sensitive receptors would be less than significant and no mitigation would be required.

Response to Wittwer Park in-58

The commenter indicates that the noise analysis does not mention the need for a soundwall to shield off-site receptors from “Project-created sounds.” As stated in the noise analysis assumptions, and as shown in the SoundPlan modeling data files included in the appendix, on-site operational
noise impact analysis only included reductions for existing soundwalls in the project vicinity. The analysis further demonstrates that all on-site operational noise levels would not exceed the City’s noise performance standards and further would not result in an exceedance of the existing background average-hourly or -daily ambient noise levels. Therefore, implementation of a soundwall to reduce on-site operational noise levels is not necessary, as no significant impact would occur. In addition, it should be noted that Mitigation Measure NOI-1b requires the installation of a minimum 6-foot high sound barrier and a 4-foot high berm along the project’s property line adjacent to East Santiago Canyon Road in order to reduce traffic noise impacts to the project. The presence of this sound barrier and berm would provide further noise reduction for on-site noise sources, reducing the on-site operational noise levels as measured at off-site receptors to be even lower than what is stated in the stationary source noise impact analysis shown in Section 3.12, Noise, pages 3.12-37 and -38. Therefore, the noise impact analysis fully discloses the assumptions made in the modeling. Furthermore, it provides a conservative analysis of operational noise impacts by evaluating predicted noise levels as measured at the nearest sensitive receptors without accounting for noise reductions that would be achieved from implementation of the project’s sound barrier and berm that are required under Mitigation Measure NOI-1b. Finally, the analysis clearly demonstrates that the project would not result in an exceedance of the City’s noise performance standards. Thus, the conclusion that Project on-site stationary source noise impacts on off-site receptors would be less than significant remains valid.

Response to Wittwer Parkin-59
The commenter indicates that the cumulative noise impact analysis is flawed in that the cumulative noise impact analysis should not separate construction and operational noise impacts in the cumulative impact analysis. The commenter correctly states that it is the “volume [of noise], not the type, of noise” that matters to sensitive receptors in a cumulative noise impact analysis. The cumulative noise impact analysis correctly addresses and evaluates the project-related combined reasonable worst-case noise levels as measured at nearby sensitive receptors. As such, as discussed, the loudest phase of construction activities (the site preparation phase) would not occur simultaneously with any project operational noise impacts. Therefore, the cumulative noise impact analysis must consider these noise sources separately, as they would occur on different timelines. As construction noise and project operational-related noise would not overlap in time, they would not contribute to the same cumulative ambient noise impact. By identifying the noise impacts from construction activities and from operational activities separately, the analysis, therefore, has correctly analyzed the project’s contribution to a cumulative impact.

The commenter further claims that, “Project construction will contribute to cumulatively significant noise impacts when considered in conjunction with all other contemporaneous noise impacts.” The commenters also states that “several locations will exceed the 65 decibels CNEL during the lifetime of the Project,” apparently implying that this indicates an automatic significant cumulative impact. However, the significance threshold for a cumulative impact would be ambient noise levels that exceed the City’s “conditionally acceptable” threshold for a receiving land use. The ambient noise environment in the project vicinity, as documented through the ambient noise monitoring and traffic and airport noise modeling, does not (and would not in the future year 2040 conditions) have noise levels that are in excess of the City’s “conditionally acceptable” noise levels for any receiving land use in the project vicinity. Therefore, there is no significant cumulative impact to which the project is
contributing. Furthermore, the analysis shows that project-related construction noise levels would be reduced to less than significant with implementation of Mitigation Measure NOI-1a (which includes restrictions on permissible hours of construction in compliance with the City’s noise ordinance requirements for construction noise sources). The analysis also shows that project-related operational noise levels would not cause ambient noise levels in the project vicinity to exceed “conditionally acceptable” noise levels for any land use in the project vicinity from any project-related noise source. Therefore, there is no significant cumulative impact to which the project is contributing or creating. As such, the conclusion that the project would not contribute to a significant cumulative impact to the ambient noise environment in the project vicinity is valid, and no mitigation would be required.

Response to Wittwer Parkin-60
Please refer to Response to Wittwer Parkin-59.

Response to Wittwer Parkin-61
The Southern California Association of Governments (SCAG) is the regional body charged with allocating regional housing requirements and projecting regional growth down to the local level. As shown in RDEIR Section 3.13, Population and Housing, Table 3.13-3, the proposed project would increase the City’s population by 393 persons. The population of the City of Orange is forecast to increase from 141,420 (the City’s 2016 population estimate) to 151,400 people in 2035 (DOF 2015; SCAG 2013), a net increase of 9,980 people. The proposed project’s 393 residents would represent approximately 3.9 percent of the City’s projected population increase, which does not represent a significant increase. To answer the commenter’s question, the project would not cause the City population to exceed its estimated growth rate.

Furthermore, the project would help carry out the goals, objectives, and policies of the City’s General Plan Housing Element by developing a new for-sale residential development that offers additional housing opportunities in the City. Specifically, the housing element indicates the need/objective for construction of 5,079 new dwelling units in the City (2014-2021 Housing Element, Appendix C-1, Table C-1, Progress in Achieving Quantified Objectives: 2006-2014 Planning Period, of the housing element) in order to accommodate the City’s forecast growth in the number of households, to replace expected demolitions and conversion of housing units to non-housing uses, and to achieve a future vacancy rate that allows for healthy functioning of the housing market. Project development would help accomplish a portion of this need/objective by providing 128 residential units in the City.

Response to Wittwer Parkin-62
Contrary to the commenter’s assertion, the RDEIR considers and evaluates potential impacts to schools in Impact PS-3. That discussion identifies that the Orange Unified School District would provide K-12 education to the proposed project. The discussion further explains that the proposed project would develop up to 128 dwelling units, which would add 393 new residents to the City’s population. Then, using a standard student generation rate of 0.5 student/dwelling unit, the RDEIR discloses that the proposed project would add 64 new students to the School District’s enrollment. Only after this discussion does the RDEIR conclude that the payment of impact fees pursuant to Government Code Section 65995 would reduce impacts to less than significant. The fees set forth in
California Government Code Section 65996 constitute the exclusive means of both “considering” and “mitigating” school facilities impacts of projects. (GOV § 65996(a); see also Chawanakee Unified School Dist. v. County of Madera (2011) 196 Cal.App.4th 1016, 1020.)

**Response to Wittwer Parkin-63**

The City’s public libraries operate according to the Public Library Facilities Master Plan (2002-2020). The Master Plan outlines current and projected future demand based on City’s General Plan buildout. The document is intended to ensure that the California State Library’s recommended standard of 4 volumes and 0.7 square foot per capita is maintained, and that the City’s library services needs are met as future development occurs. The project would add 393 residents. The population increase would result in an increase in the demand for books, periodicals, and similar materials. Using the California State Library standard of 4 volumes and 0.7 square foot per capita, the proposed project would generate an estimated demand for approximately 1,572 volumes and 275 square feet of library space. However, the increase in population associated with the proposed project would have a nominal effect on the library.

Moreover, during the City’s development review process, the project would be required to comply with the requirements of the Orange Municipal Code, including payment of the required library facilities fee, as outlined in Chapter 3.50 (Library Facilities Fees) of the Orange Municipal Code. Pursuant to Section 3.50.080 (Use of Library Facilities Fees), the funds collected under the program would be used for the purpose of (1) paying the actual or estimated costs of acquiring, building, improving, expanding, maintaining, and operating public libraries located within the City of Orange or (2) reimbursing the City of Orange for the development’s share of those library facilities already constructed by the City of Orange or for costs advanced with respect to a specific library facility project. Impacts would be less than significant.

Contrary to the commenter’s assertion, the RDEIR’s discussion of impacts related to library services is not inadequate. The commenter fails to describe or request additional information, but rather makes a general statement that “further explanation is needed.” The RDEIR provides adequate information and additional explanation is not required.

**Response to Wittwer Parkin-64**

The commenter incorrectly suggests that the cumulative impacts analysis should discuss potential impacts associated with the maximum future response area of the police department. However, in addition to being speculative, this eventual maximum service area is not the appropriate measure for a cumulative impact analysis. A cumulative impact is created by the combination of the project reviewed in the RDEIR together with other projects causing related impacts (CEQA Guidelines § 15130(a)(1)). The cumulative impact from several projects is the change in the environment that results from the incremental effect of the project when added to other past, present, and probable future projects (CEQA Guidelines §§ 15065(a)(3), 15130(b)(1)(A), and 15355(b)). Consistent with the requirements of CEQA, the RDEIR appropriately considered the cumulative impacts of the proposed project in conjunction with other proposed and approved projects in the City of Orange. RDEIR Section 4, Cumulative Effects, Table 4-1, provides a list of the other projects considered in the cumulative analysis. Cumulative impacts regarding public services are discussed in detail in RDEIR Section 4, Cumulative Effective, subsection 4.2.14, pages 4-10—4-11). Contrary to the commenter’s
assertion, the RDEIR adequately explains how the City would meet service needs in light of the project’s impacts combined with other past, present, and reasonably foreseeable future projects.

Response to Wittwer Parkin-65
An EIR’s discussion of cumulative impacts need not provide the same level of detail as is provided for project-specific effects (CEQA Guidelines § 15130(b)). The level of detail provided should correspond to the severity of the impact and the likelihood that it will occur (CEQA Guidelines § 15130(b).) Here, the Fire Department indicated that the project’s impacts on fire services would be less than significant and that the Department could handle the call load associated with the project (Appendix O.) Moreover, an increase in response times or in demand on public facilities, services, and utilities that will result from a project is not, standing alone, an environmental impact under CEQA. (City of Hayward v. Trustees of California State University (2015) 242 Cal.App.4th 833.) Contrary to the commenter’s statement, the conclusion in the RDEIR is based on evidence in the record. The project will not make a contribution to a cumulative environmental effect.

Response to Wittwer Parkin-66
The proposed project design feature is a voluntary transportation improvement to be implemented by the Applicant and is not a mitigation measure. The LOS values shown for Cannon Street at Taft Avenue in Table 3.16-11 are not consistent with the LOS values contained in the TIA (Appendix P) and were shown in error. The AM peak hour “Existing with Project Traffic Conditions” LOS should be 0.985 (LOS E) and the PM should be 0.655 (LOS B), which is consistent with Table 3.16-12. This typographical error will be corrected in Section 4, Errata, the FEIR.

Response to Wittwer Parkin-67
Because of the proposed Project Design Features, it is accurate that the level of service may decrease under “Existing with Project” traffic conditions even though the Project will add traffic to the transportation system. Contrary to the commenter’s assertion, the analysis is not a “shifting baseline.” It is proper under CEQA to implement design features as part of a project. Contrary to the commenter’s statement, project design features are binding components of the project.

Response to Wittwer Parkin-68
The City of Orange Traffic Impact Analysis Guidelines (dated August 15, 2007) indicates that a transportation impact on an intersection shall be deemed “significant” and require mitigation under CEQA in accordance with following table:

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Final V/C Ratio</th>
<th>Project-Related Increase in V/C</th>
</tr>
</thead>
<tbody>
<tr>
<td>E, F</td>
<td>&gt;0.900</td>
<td>equal to or greater than 0.010</td>
</tr>
</tbody>
</table>

As concluded in the RDEIR, the project would add less than 0.010 to the V/C ratio. Based on the City thresholds identified above, the project would not result in a significant impact at any intersection.
Response to Wittwer Parkin-69
The Planned Improvements referenced by the commenter are consistent with the General Plan Circulation Element and will be implemented over time by the City and/or development community. One of the Planned Improvements is to widen and/or restripe East Santiago Canyon Road at Orange Park Boulevard to provide a third eastbound through lane and a third westbound through lane. Mitigation Measure TRANS-2 would require the project Applicant to contribute fair share fees to restripe the northbound approach of Orange Park Boulevard at East Santiago Canyon Road to provide one exclusive left-turn lane and one shared left-turn/right-turn lane. The Applicant’s fair share responsibility for these improvements is 18.2 percent.

Response to Wittwer Parkin-70
Table 3.16-13 reflects the Roadway Segment LOS Summary, whereas the other tables that reflect Taft/Cannon as LOS E are Intersection LOS Summary tables. Therefore, the RDEIR correctly identifies the LOS at this location and does not pose a discrepancy.

Response to Wittwer Parkin-71
The RDEIR correctly identifies that the Project will only cumulatively impact one location based on the City of Orange impact criteria. Adding Project traffic to a study location operating at LOS E or worse does not automatically constitute a significant impact in itself.

Response to Wittwer Parkin-72
As referenced in Section 3.17, Tribal Cultural Resources, page 3.17-9, of the RDEIR, no tribal cultural resources were observed on-site during the field survey. A “tribal cultural resource” is defined as (1) “sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe” that are included in the State or local register of historical resources or that are determined to be eligible for inclusion in the State register; and (2) resources determined by the lead agency, in its discretion, to be significant on the basis of criteria for listing in the State register of historical resources. (PRC § 21074(a).) As detailed throughout Section 3.17, the RDEIR conducted extensive research to determine if there were any tribal cultural resources on site eligible for inclusion in the state register. In TCR-1 it is explained that the project site is not listed on any national, State, or local registers of historic places (including those for tribal cultural resources). Because the project site contains undeveloped land, it does not possess any attributes that would make it eligible for such a listing. Therefore, the RDEIR properly concluded that there were no resources meeting the definition of a tribal cultural resource on the site.

To further explore whether any cultural resources with value to a California Native American tribe were present on site, FCS contacted 12 identified tribal contacts. FCS also sent a letter to the Native American Heritage Commission (NAHC) in an effort to determine whether any sacred sites are listed in its Sacred Lands File for this portion of the City of Orange. The City did not receive any responses requesting consultation.

Based on the lack of identified resources during extensive research and field surveys and the fact that the City did not receive any responses indicating that the project would cause a substantial adverse change in the significance of a tribal cultural resource, the City is within its discretion to determine that there are no known tribal cultural resources on site. Contrary to the commenter’s
statement, the RDEIR did not conclude that impacts were less than significant simply because no response from tribal representatives was received. Additionally, in an abundance of caution, the RDEIR sets forth mitigation measures for the inadvertent discovery of such resources during construction. Refer to Section 3.4, Cultural Resources, for further discussion.

Response to Wittwer Parkin-73
An analysis of impacts to wastewater facilities due to the project is in RDEIR impact analysis USS-2. As discussed, the project would generate approximately 0.060 million gallons of wastewater per day. Wastewater would be treated at either Orange County Sanitation District (OCSD) Plant No. 1, which has a primary treatment capacity of 198 mgd, or Plant No. 2, which has a primary treatment capacity of 168 mgd. The proposed project’s daily effluent generation of 0.060 mgd represents less than 0.01 percent of the primary treatment capacity at either plant. Additionally, according to the OCSD, average daily influent has steadily decreased since approximately year 2000 (from approximately 250 mgd in 2000 to less than 200 in 2016) due to conservation efforts. (OCSD 2016-2017 Annual Report, Figure ES-1.) Therefore, OCSD wastewater treatment plants have additional capacity to accommodate the project’s flows compared to previous years.

Response to Wittwer Parkin-74
The project properly relies on design features that will be implemented with the proposed project. A feature built into the design or operation of a project that will reduce or avoid an environmental impact that might otherwise occur is not treated as a mitigation measure. (See, e.g., Wollmer v. City of Berkeley, supra, 193 Cal.App.4th 1329, 1352.)

Response to Wittwer Parkin-75
Contrary to the commenter’s assertion, the RDEIR did not wrongfully dismiss the environmentally superior alternative. As discussed in Section 5.5, after thorough analysis was conducted, the Collaborative Group Alternative was determined not to advance the objectives that concern guiding the transition of an infill site with a Specific Plan; would not develop a logical internal circulation system for pedestrians, bicyclists, equestrians, and motorists; and would not include the Development Agreement benefits to the community. Development consistent with a Specific Plan does not unreasonably narrow the analysis as suggested by the comment. Although the Collaborative Group Alternative was determined not to meet project objectives, it is adequately analyzed in the RDEIR and the decision-making body could consider approving this alternative; therefore, it is not improperly dismissed.

Response to Wittwer Parkin-76
To fully analyze potential traffic, air quality and other potential impacts, it was conservatively estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period. This estimate is based on the reasonable assumption that each haul truck would have a capacity of 10 cubic yards per load. This allows the reader and decision makers to fully understand potential environmental impacts. There is no evidence that this conservative estimate, or the underlying assumption, is wasteful, inefficient, or involves the unnecessary consumption of energy. Therefore, the energy section does not need to be revised to reduce the number of these trips or the trip length. Impacts were fully analyzed and determined to be less than significant.
Response to Wittwer Parkin-77
As the comment notes, the OCTA does not have plans to extend bus service to the project area; however, the project does not include any design elements that would preclude buses in the future. OCTA identifies transit priorities in its Long Range Transportation Plan. The assumption that the project’s VMT would be higher than those in an urban center is speculative. Moreover, the project would not result in any significant adverse environmental impacts. Therefore, mitigation is not required. The commenter’s opinion that the project fails to meet a numeric distance to commercial and job centers is unsupported by a CEQA or City threshold. Finally, the project is designed to encourage pedestrian and equestrian uses.

Response to Wittwer Parkin-78
The RDEIR states that the project would comply with Title 24, which requires new non-residential buildings to be “solar ready” and requires solar photovoltaic systems for new homes. The RDEIR further states that this requirement is consistent with the Million Solar Roofs program because it does not impede implementation of this strategy. (RDEIR, page 3.7-23.) However, this consistency finding is not intended as a mitigation measure. Contrary to the commenter’s suggestion, rooftop solar panels are not required as a mitigation measure of the project because no significant impacts were identified. To maximize energy efficiency in the project, the Specific Plan states that the builder(s) at The Trails of Santiago Creek are required to go “above and beyond the standards set forth in Title 24 by incorporating additional elements of energy efficient design.” (Specific Plan, page 6-45.) A minimum 5 percent energy efficiency baseline will be required for all builders, which is more than is required by Title 24. (Specific Plan, page 6-45.) This requirement ensures that the project is energy efficient and reduces waste.

Response to Wittwer Parkin-79
This comment does not raise any environmental issues. The request for notice is noted.
FINAL
Environmental Impact Report
Trails at Santiago Creek Specific Plan
City of Orange, Orange County, California
State Clearinghouse No: 2017031020

Prepared for:
City of Orange
Community Development Department, Planning Division
300 East Chapman Avenue, Orange, CA 92866
714.744.7231
Contact: Robert Garcia, Senior Planner

Prepared by:
FirstCarbon Solutions
250 Commerce, Suite 250
Irvine, CA 92602
714.508.4100
Contact: Jason Brandman, Project Director
Cecilia So, Project Manager
Date: September 16, 2019
Addison Adams  
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December 31, 2018  

Mr. Robert Garcia, Senior Planner  
City of Orange  
Community Development Department, Planning Division  
300 E. Chapman Avenue  
Orange, CA 92866  
rgarcia@cityoforange.org  

Re: Draft EIR – The Trails at Santiago Creek  

Dear Mr. Garcia,  

I am submitting this comment letter regarding the Recirculated draft Environmental Impact Report dated November 14, 2018 for the Trails at Santiago Creek Specific Plan (the “DEIR”). I am generally in favor of the proposed development and all of the stated alternatives. The location and acreage of the proposed development is acceptable.  

The Number of Homes. The number of homes is high and the Collaborative Group Proposal of 47 homes with a community stable is a much better proposal, and more consistent with the OPA Specific Plan, than the requested 128 homes (without a stable). The requested number of 128 homes delivers a density consistent with the density in Jamestown and Mabury Ranch and in that respect matches the area like a glove. However, it is inconsistent with the one-acre density in The Reserve and properties along Oak Lane and Windes, and much (but not all) of the density in Orange Park Acres. The developer should comply with the Orange Park Acres Specific Plan and should build a development consistent with the equestrian and rural nature of Orange Park Acres. I believe the proposed development has the potential to expand the equestrian and rural nature of Orange Park Acres and comply with the spirit of its Specific Plan, even with 128 homes. This is dependent on assuring that the open space portion of the site is open to the public and developed with trails and linkages accessible for hikers and equestrians, and
Mr. Robert Garcia, Senior Planner  
Re: Draft EIR – The Trails at Santiago Creek  
December 31, 2018  
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that the developed portion is done in such a manner as to promote the rural nature of the area and also promote equestrian friendly land use. Assuming that is the case, I believe the developer should get credit for all 109 acres of the site and should get credit for the acreage included in the Ridgeline site offered to the City in calculating the gross density of the proposed project. Including that property in the density calculation would result in more than 128 acres for 128 homes, consistent with the concept of 1 home per acre referenced in the OPA Specific Plan.

The OPA Specific Plan. The OPA Specific Plan approved by the City of Orange in 1973 begins on page 95 of the plan documents.

The Plan itself states a goal of the Plan is to “Provide housing for a variety of incomes within the economic parameters of today’s costs”. Plan, p. 99.

Restricting all new housing to one acre lots would exclude lower income homeowners from new developments in Orange Park Acres. The Plan does not directly state that all new housing must be one home per acre, but rather indirectly references that concept in several places while at the same time acknowledging greater housing density:

“The proposed Specific Plan is a mix of the One-Acre and the Cluster Alternative Plans. This Plan will offer a rural environment which will allow the one-acre lots to continue developing in the area while also allowing for a viable economic community. There are three proposed housing concepts presented in the Plan: (1) single family detached, (2) hilltop clusters and (3) flatland clusters.” Plan, p. 104.

The Plan references Exhibit #27 to describe the location of different density types, but unfortunately Exhibit #27 (Plan, p. 105) is illegible and apparently no legible version of the Plan exists. Flatland clusters are described in the Plan at pages 106-107 and include density greater than one house per acre, and can be attached or detached homes. The purpose of flatland clusters is to provide “open space, economic viability, low circulation, no congestion with off-street parking and provides heavy landscape buffering from noise and enhances the visual image.” The proposed development arguably qualifies as a “flatland cluster” under the plan
as the proposed homes are all clustered in an area with significant surrounding open space provided as a buffer to enhance the rural feel of the area and includes equestrian trails through and around the development. The Plan states “The acceptance of rural clustering in Orange Park Acres will allow families of moderate incomes to live in the area.” Plan, p. 135.

One of the shortcomings of the proposed development is that it does not “allow for the keeping of animals in a collective manner” as contemplated by the Plan at page 107 for flatland clusters. That would be a reasonable condition to approval of the project.

As far as zoning density authorized by the Plan, the Plan states at page 112 “There are four residential density classifications proposed for the Specific Plan: (1) low density – one acre, (2) low density – one-half acre, (3) medium low density and (4) medium density.” Plan, p. 112. Thus, the Plan does not appear to limit all development to one-acre parcels only, but rather provides four different density alternatives plus allows clustering of attached and detached homes.

Page 116 ambiguously states “In summary of the residential development proposals, the existing development of residential is retained and one-acre minimum lots are proposed for all of the flatland areas adjacent to the existing one-acre developed areas.” See also page 139 which states “Allowing further development of one-acre lots …”. The Plan describes certain areas as one of four residential densities, and describes other areas as open space, or other uses. The Plan is illegible as to which specific areas are described in which manner, but it appears that the portion of the project site within the Plan boundaries is not contemplated residential at all. As such, if the City is inclined to change the zoning from open space to residential, it would seem permitted to elect any of the residential zoning options available under the Plan and not be limited to a one-acre mandate. Certain areas are mandated as one-acre only, and this site is not one of them.

Further, when looking at residential density the Plan allows for non-buildable areas to be included in the gross acreage calculations for determining density. See page 112 (“an allowance of acreage for steep topography and adjacent open space was
Mr. Robert Garcia, Senior Planner  
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included in the gross density acreage proposed for cluster units”), and page 115 (“Overall density is calculated on the gross area including directly associated permanent open space or greenbelt areas included at the time development is proposed.”). Accordingly, the developer could and should be given credit for all 109 acres of the subject site, and the donation of the Ridgeline site, regardless of whether the land is open space or non-buildable, as part of calculating gross density.

The Plan states a policy of the Plan is to “Promote the phasing-out of gravel pit operations along Santiago Creek and promote restoration of natural amenities within the area.” Plan, p. 101, para. 11. A Plan policy includes to “Preserve Santiago Creek as a balanced ecological system and riparian area, maintaining the diversity of plant and vertebrate species while allowing for light recreational use such as equestrian and hiking trails. Specifically support the Santiago Creek Greenbelt Proposal by the County of Orange.” Plan, p. 100, para. 10. This proposed development terminates gravel pit operations (consistent with the Plan), restores natural amenities in the Creek (consistent with the Plan), and creates equestrian and hiking trails along the creek (consistent with the Plan).

The proposed development could include more detail regarding whether the development will comply with policies of the Specific Plan found on page 100-103 of the Plan including:

1. Use of natural wood rail fencing
2. Variety of housing product to avoid a “lined up” appearance
3. Use of natural earth tone exteriors
4. Emphasize use of one-story structures.
5. Use natural drainage rather than lined channels.
6. Utilize rural road standards and incorporate equestrian trails along roads
7. Continuous trail linkages connecting trails and major features such as Santiago Creek and Handy Creek.
22. Grade separated crossings for trails.

29. Provide the flexibility for raising and keeping of animals in all development on the flatland areas where possible.

As shown above, there are aspects of the development proposal that vary from the Specific Plan. Many of these are design issues that can be remedied as a condition of approval.

**Nuisance Abatement:** A condition of approval of the project should be the immediate permanent termination of all sand and gravel and rock crushing and rock storage activities at the site.

**Remediation:** The City needs to make sure that the creek and surrounding open space areas are cleaned up and put back to a natural state (free of hazardous mining debris and waste) as part of any approval of this project. The open space portions, including the creek, need to be cleaned up of any harm caused by the mining operations and other historical uses of the site. I don’t see this included in the RDEIR. Similarly, the developed areas need to be cleaned up to a safe level for use by the new homeowners. We need to make sure this project doesn’t turn into a health hazard or construction defect problem for the community. It is not clear that the developer is willing to spend “whatever it takes” to properly clean up the site. Rather, they are proposing a fixed amount of funds which may not be adequate.

**Ongoing Stewardship of Open Space:** The open space portion of the proposed development should not remain as privately owned land that could be mismanaged or fenced off to the public. A condition of the development should be an agreement by OC Parks to include the creek and open space area as part of the regional park system. This will assure the trees and plants will be maintained, the trails cared for, and the creek properly managed in perpetuity. In order to have a long-lasting greenway and public enjoyment of the site, a permanent steward such as OC Parks is necessary. This is not included in the RDEIR. The development should not be approved without it.

**Trail Connectivity.** A trail linkage is needed to the parking lot at the head of the Class I bike trail adjacent to the site across Cannon to the west. Most likely
following the creek under the Cannon bridge. In addition, creek crossings are needed at both the west and east ends of the site. The trail system should connect Santiago Canyon Road on the south to Mabury Ranch on the north, and of course all the trails should connect to the Mabury Ranch trail which leads into Santiago Oaks Regional Park along the north side of the creek. Another creek crossing is needed at the entrance to Santiago Oaks Regional Park. Making provision for parking and trail access on the former dump on the corner of Cannon and Santiago Canyon Road would be smart planning.

View Impairment. The stockpiles of dirt are currently impairing the view across the site from Santiago Canyon Road, from Mabury Ranch, The Reserve, greater Orange Park Acres, Jamestown, and The Colony. The stockpiles of dirt need to be removed or smoothed out. Any project proposal needs a grading plan and height restrictions to determine elevations and whether the project would impair views.

Timing. Any approval of the RDEIR should modify the timing of all benefits to the Company so that they occur immediately on approval and not later. The gravel yard operations should be terminated effective immediately upon approval. The stockpiles should be reduced immediately on a schedule that is actually honored. The Pre-Development Agreement has been violated in that the stockpiles were supposed to be reduced but in fact have been built higher. The Ridgeline donation to the City should be immediate. The open space should be donated to the County and managed by OC Parks immediately upon approval. We should avoid a situation where entitlements are granted and yet there are no benefits provided to the community. Many of the benefits are tied to a certificate of occupancy. As actual construction may never occur, we need to make sure the property does not continue in its current state for an indefinite period of time.

The OPA Specific Plan was recommended “as a general guide for further development in Orange Park Acres”. Plan, p. 143. Orange Park Acres is a unique community which deserves protection by the City of Orange. The proposed project provides many benefits to Orange Park Acres and as much as reasonably practicable the OPA Specific Plan should be followed. The gravel yard operations should have been terminated 20 years ago. It would be best to terminate those operations now and leave the entire valley open space for use by the public after
remediating the property from historical mining operations. However, that hasn’t happened in twenty years and there seems to be no appetite to force that termination now. Given that, this proposal or a proposal similar to it is the next best option for this location and I support a well thought out housing development with open space and trails with connecting linkages.

Thank you for your attention to these comments to the RDEIR for the Trails at Santiago Creek.

Best regards,

[Signature]
Individuals

Addison Adams (ADAMS)

Response to ADAMS-1
Comment noted. This comment supports the Collaborative Group Alternative and the development of 128 dwelling units. The commenter states that with acreage credit, the project would be consistent with the Orange Park Acres Plan. No further response is necessary.

Response to ADAMS-2
Comment noted. This comment supports the project’s proposed clustering. No further response is necessary.

Response to ADAMS-3
Comment noted. The commenter suggests that the proposed development allows for “the keeping of animals in a collective manner,” consistent with the Orange Park Acres Plan, be included as a condition of approval. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to ADAMS-4
Comment noted. This comment supports the proposed residential zoning change for the project. No further response is necessary.

Response to ADAMS-5
Comment noted. This comment suggests that the developer should be given credit for all 109 acres of the subject site, and the donation of Ridgeline site, as part of calculating gross density, consistent with pages 112 and 115 of the Orange Park Acres Plan. No further response is necessary.

Response to ADAMS-6
Comment noted. This comment supports the termination of gravel pit operations, restoration of natural amenities to Santiago Creek, and creating equestrian and hiking trails along the creek, all consistent with the Orange Park Acres Plan.

Response to ADAMS-7
Comment noted. Please refer to the October 30, 2018, The Trails at Santiago Creek Specific Plan, found on the City’s website (https://www.cityoforange.org/DocumentCenter/Index/635) for specifics on the design of the project. The commenter suggests design issues can be remedied as a condition of approval. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project, and what conditions of approval to consider in connection with that decision.

Response to ADAMS-8
The commenter requests the immediate permanent termination of all sand, gravel, rock crushing, and rock storage activities at the site be included as a condition of approval. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project, and what conditions of approval to consider in connection with that decision.
Response to ADAMS-9
Comment noted. As discussed in RDEIR Section 3.4, Biological Resources, page 3.4-50, implementation of Mitigation Measure BIO-3 would be required to reduce the project impacts to sensitive natural communities.

MM BIO-3  Prior to the issuance of any grading permit in the areas designated as sensitive riparian communities (e.g., southern cottonwood-willow riparian forest or black willow scrub/ruderal), the project applicant shall demonstrate to the satisfaction of the City that either of the following have been or will be accomplished:

On- or off-site restoration or enhancement of sensitive riparian communities (e.g., southern cottonwood-willow riparian forest) at a ratio no less than 1:1 for permanent impacts. Temporary impacts will be restored to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 1:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank (e.g., Soquel Canyon Mitigation Bank).

If mitigation is to occur on-site and/or off-site (i.e., not an in-lieu fee program), a mitigation and monitoring plan shall be prepared. The plan shall focus on the creation of equivalent habitats within disturbed habitat areas of the project site and/or off-site. In addition, the plan shall provide details as to the implementation of the plan, maintenance, and future monitoring. Mitigation for impacts to sensitive riparian communities shall be accomplished by on- or off-site restoration and/or enhancement (e.g., transplantation, seeding, and/or planting/staking of sensitive riparian species; salvage/dispersal of duff and seed bank; removal of large stands of giant reed within riparian areas).

Response to ADAMS-10
Please refer to Master Response 6—Stewardship of Open Space.

Response to ADAMS-11
Comment noted. The project will be responsible for constructing trails and bikeways within the project boundaries. A variety of recreational trails for combined uses of hiking, bicycling, and horseback riding will traverse the project site. For example, along the north side of East Santiago Canyon Road, an off-street recreational trail will extend along the entire length of the project site. This trail will provide continuity from the existing recreational trail that parallels the roadway east of the project site. In addition, recreational trails will extend northward from the East Santiago Canyon Road trail and will cross the Santiago Creek riparian corridor via a bridge that will span the creek environs. The bridge will be located toward the easterly end of the creek corridor. There will also be trails adjacent to the proposed Greenway Open Space area on the northeast portion of the project site. At the project’s eastern boundary, the trail system will continue off-site to the Santiago Oaks Regional Park. Trail crossings will be provided for safe crossing of residential streets.

The creek crossing mentioned by the commenter is outside the project’s boundaries. As noted in RDEIR Appendix Q, the construction of a trail underpass under Cannon Street is envisioned as
Project 7.1 in the Santiago Creek Vision Plan. This land is currently County owned land east of Cannon Street and north of East Santiago Canyon Road. Project 7.1 is currently identified as a future project in the Santiago Creek Vision Plan.

Response to ADAMS-12
Comment noted. The project will be required to comply with the City of Orange Zoning Code with regards to building height restrictions.

Response to ADAMS-13
This comment requests that the gravel yard operations should be terminated effective immediately upon approval; that the stockpiles be reduced immediately; the Ridgeline donation to the City should be immediate; and the open space should be donated immediately to the County and managed by OC Parks immediately upon approval. The commenter would like the benefits be provided to the community immediately and not tied with the certificate of occupancy. This comment is noted and will be provided to the City decision makers for their review and consideration in determining whether to approve the project, and what conditions of approval to consider in connection with that decision.

Response to ADAMS-14
This comment opines that the gravel yard operations should have been terminated 20 years ago and it would be best to terminate those operations now and leave the entire valley open space for use by the public after remediation. The comment continues to support the housing development with open space and trails with connecting linkage. This comment is noted and no further response is necessary.
To Whom it May Concern.

As a resident and homeowner in the city of Orange, I highly oppose the development called "Trails at Santiago Creek."

Every week day between the hours of 4:00PM and 7:00PM, you can find an extremely long line of cars heading North/West on Santiago Canyon Rd, backed up between Cannon and Newport. It takes nearly 30 minutes to travel less than 2 miles. How could one possibly believe adding to this already congested area could be beneficial to anyone?

Let us not forget the impact of the proposed building area being a flood plain. Won't you be excited when it downpours, and the area floods? That will sure look great on the builder and planning committee.

Please keep Orange Park Acres an equine-friendly neighborhood. There is nowhere else for us to go nearby that is nearly as beautiful and available to trails and open space.

Sincerely,
Kaitlin Agee
Kaitlin Agee (AGEE)

Response to AGEE-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Comment noted, for the comment related to Traffic, please refer to Response SMW-17.

Response to AGEE-2
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.
THIS PAGE INTENTIONALLY LEFT BLANK
I do not agree with the plans brought before the City if Orange by the Milan Group to build house on an area not zoned for house. The City lacks the required green space, open space and parks as it is, secondly that land needs to be restored before we put humans on top of it. The City cannot afford an enormous lawsuit because those in charge now to circumvent existing zoning.

Thank you for your time, please do not allow this project to proceed

Wendy Alexander
7711 E. Santiago Canyon Rd
Orange Ca 92869
Wendy Alexander (ALEXANDER)

Response to ALEXANDER-1

Comment noted. Please refer to Master Response 1—Plan Consistency. Please see Master Response 6—Stewardship of Open Space.
Dear Mr Garcia,

My husband and daughter and I moved to Orange Park Acres in 1994. We also moved our 2 horses here from Huntington Beach. Developers had come into Huntington Beach and much of our open riding land and trails had been taken. It was a good move to OPA, we felt like we had found horse heaven! Beautiful country, open riding space, great trails and a small two lane road behind our house known as Santiago Canyon Rd.

Our house backs up to The Santiago Canyon curve just west of the Holy Sepulcher Cemetery. Soon after we moved here, a motorcycle driver was riding west on Santiago behind our house. It was a beautiful day, but the motorcycle left the road, hit a fire hydrant head on, the bike stopped but the rider flew off and took out two section of white trail fencing on the north side of the road. My husband jumped over the wall to help him. Soon I heard sirens coming up the hill; I jumped in my car to drive over to the side street (Kenny mead) and pick up my husband so he didn’t have to climb back over the wall to get back home. The motorcycle rider’s leg from the knee down was in the road, his lifeless body lay up on the horse trail, helmet off, looked like he broke his neck.

The next fatal accident was a 17 year old male driver coming down the hill in his ’68 Mustang. It was raining heavily and the water off the north slope was cascading down over Santiago Rd. He drove west into this moving creek of water and the car hydroplaned across the Rd and spun around going uphill facing east. Faster moving traffic coming up the couldn’t stop and rear ended the Mustang. The car burst into flames and the young man died sitting in the drivers seat.

We’ve had 5 fatal accidents behind our house plus several fender benders and sideswipes and flip overs, so I called the traffic person at the City of Orange. He couldn’t effect any change but eluded to the fact that our stretch of road did have “the most horrific accidents in Orange”.

I went to our city council in February 2006 to ask for several changes in that road to prevent fatalities. I recommended a guard rail on the north side to prevent vehicles from going off the road and into the runoff ditch; instead of a paint line separating cars on this dangerous road I recommended a median, I also recommended a lowered speed limit. The council listened to my comments, I looked everyone of them in the eye, including our then Councilman Steve Ambriz.

Three months later that councilman was killed on the curve behind my house by an intoxicated driver in a large double cab duly truck, she crossed the paint line and hit Steve’s car head on, then her truck came through our wall into our yard.

Now the small 2 lane country road behind our house is a four lane highway with a guard rail on the outside of the curve, a median down the middle of the road and the city lowered the speed limit to 45 mph on the curve. You’d think things would get better but we’ve had another fatality since all those improvements were made. Our little country road is now known to many as “Deadman’s Curve”.

When the 241 Toll Road was finished our traffic doubled. Now people avoid the toll booth going towards the 91 by cutting through OPA and use Santiago to get to Cannon Street or farther west on Katella. Suddenly in the afternoons we
have gridlock behind our house; a stream of bumper to bumper cars wind down the hill from the Cemetery to Cannon. This is a major hazard if emergency vehicles need to get by.

Then the Canyon 2 fire happened last year. We were given very little time to evacuate. Most homes up here have horses; homeowners were challenged with hooking up horse trailers and loading large animals. The flames were 2 blocks from my house on Rattlesnake trail threatening the homes on Kennymead St. as I left to evacuate.

My husband was the last to leave our house with his dog in the car; I was waiting for him in the Pacific Ranch Market parking lot where I had taken 2 dogs to board at our Veterinarian’s office. He called to tell me he was stuck on Orange Park Blvd. He described the many trucks and horse trailers were bumper to bumper going in both directions. There was an officer at Orange Park Blvd at Chapman and would ONLY allow vehicles to make a right turn. He asked me how I got out, I told him I drove out on Amapola and made a right on Santiago Canyon Rd. He made a U-turn to go back north on Orange Park Blvd. after total gridlock he finally got to Kennymead and drove up the hill toward Amapola, the fire had jumped Kennymead and several firefighters were actively fighting the flames. Fire trucks also blocked his escape. He called me back and told me he was having a hard time getting out. He turned back on Kennymead and drove back to Meads, when he got to Santiago Canyon Rd an officer there would ONLY allow traffic to turn left. We were unable to meet up in the Parking lot at Pacific Ranch Market that day, traffic was horrendous and the few main arteries we have to escape were all clogged or diverted.

The Canyon 2 fire did not happen during rush hour that day. I shudder to think how catastrophic the outcome could have been if all of OPA residence and livestock had to evacuate during rush hour with bumper to bumper traffic on Santiago from Cannon all the way up to Amapola!

And now a developer that bought Sully Miller Gravel Pit wants to build over 120 houses there! This is not in accordance with the OPA Specific Plan. He has approval to build 40 above the flood plain, but this developer is not wanting to play by “the rules”. This developer wants The City to bend over backwards to his desires. Santiago can barely handle traffic NOW, it would be worse with 40 more houses on Santiago at Cannon, but it is totally unacceptable for 120+ houses to be built on a main evacuation street from OPA.

I BEG YOU TO SEE OUR DILEMMA HERE IN EAST ORANGE FOR GRIDLOCK AND EVACUATION REASONS. DO NOT ALLOW THIS DEVELOPER TO BECOME RICHER AND PUT RESIDENCE LIVES IN CAOS AND DANGER.

Respectfully,

Carolyn Aliotta
7229 East Clydesdale Ave.
Orange 92869
Carolyn Aliotta (ALIOTTA)

Response to ALIOTTA-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to wildfire, please refer to Master Response 5—Wildfire Risk. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

Response to ALIOTTA-2
Please refer to Master Response 1—Plan Consistency. Impacts related to transportation are discussed in RDEIR 3.16.
Robert Garcia

From: Angel Anderson <angelanderson@socal.rr.com>
Sent: Friday, December 21, 2018 11:45 AM
To: Robert Garcia
Subject: Sully Miller/Milan/Trails at Santiago

What ever it is called, it shouldn’t be built! Please drive the traffic on Santiago, Canon, and Serrano every morning and every evening if you don’t believe me. Adding another lane for traffic and a street light will not help and if the project on Serrano goes through that’s adding more cars! As is the project in Anaheim Hills at the Edwards Theater. All these commuters cut through on Serrano to Canon to Santiago. I don’t think original city planning accounted for all of this, but now it must be considered. The area can’t handle any more traffic!

If the land needs to be developed it needs to be made into something (open space would be the best) that does not require more cars to be put on the streets. I’m very against this development.

Angel Anderson

Sent from my iPhone
Angel Anderson (ANDERSON)

Response to ANDERSON-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
I have lived in Orange Park Acres for over 30 years and I oppose the development called "Trails at Santiago Creek" because it will involve changing the zoning in Orange Park Acres. Our plan is in place to protect one of the last unique horse communities in Orange County.

Janet Andrews
Janet Andrews (ANDREWS 1)

Response to ANDREWS 1-1
Comment noted. Please refer to Master Response 1—Plan Consistency.
Robert Garcia

From: paul andrews <kgoopa@aol.com>
Sent: Monday, December 24, 2018 8:29 AM
To: Robert Garcia
Subject: Trails at Santiago Creek

On March 22, 2014 a housing development in Oso, Washington slid down the hill into the river taking with it 43 human lives. On March 23, the day after the slide, a grants manager at a state office had emailed colleagues stating "I still can't believe two things; one that people continued to build on that slope and two, that Snohomish County officials let them.

Love Canal, just outside of Niagara Falls, received permission to have a development built on an old dump site. One severe weather system that brought flooding to the area raised the water table and brought dangerous chemicals to the surface. The residents, sick with cancers and respiratory problems were forced to move, their homes leveled. Once again, the developer received permission to build and they did.

The area known as Sully Miller or whatever the owner wishes to call it is dangerous. According to information I read about and spoke about in front of the city council is that it is in a flood plain. It is also located, according to information I read provided by the City of Orange, that it is on a known fault line and in an area subject to liquefaction. Now, upstream there are two earthen dams that are supposed to provide flood control in the event of severe rainfall and they too are listed on the City of Orange fault map as being on a fault line and subject to liquefaction. So, we have determined that the city is fully aware of the dangers involved if housing was built on the site; that said, who would approve of moving forward with the Milan plan?

On February 26,1969 the Santiago Creek flooded. Photos show the Army Corps of Engineers using helicopters to drop old vehicles full of sandbags into the torrent in an attempt to save the Santiago Road bridge and homes adjacent to the creek on the hillside. To this day the bridge has not been replaced and Santiago Road dead ends just past Blue Ribbon Nursery and continues again on the other side of the creek. My brother, a now retired Army Corps of Engineer flood and water specialist recently commented to me, that "it's not a matter of IF the creek floods again but WHEN".

The Belmont Learning center in Los Angeles was built at a cost of 400 million dollars. Prior to its construction there was much debate concerning the methane gas and Benzene seeping from the ground due to the area being used as an old oil field and dump. In 1993 the State Division of Oil and Gas warned of the dangers of building on such land, but their warnings were ignored. Methane gas was detected and after 15 years of rebuilding, redesigning and the installation of a 17 million dollar gas-mitigation system that costs 500K a year to operate the center was opened.
Adjacent to the Sully Miller site is an abandoned dump. Drive by and you can see the methane gas being burned off as it seeps from the ground. In all likelihood, that will never stop. In a landfill situation, organic material will continue to decompose and produce the gas, some estimates predict it to be a minimum of 50 to 75 years. When the dump was being used, the restrictions and regulations concerning the dumping of toxic waste, be it chemicals, lead, asbestos were not handled the way it is today. Today used motor oil, lead acid batteries, thinners, cleaning solvents are regulated and require specific handling and disposal. Many of the solvents and cleaning agents used in the 60's and 70's are not even permitted in this state to be sold and used.

Many of these items were used in the maintenance of mining equipment and dumped on site, buried underneath that huge pile of dirt Milan Capital, the landowner, now owns. Used motor oils and diesel fluids were excellent when used as dust control on roads around the mining operation and also was a great idea to dispose of unwanted chemicals. Lead acid batteries, their disposal now regulated by State and local agencies, were simply dropped in a hole and buried. How many would you guess are underneath that mountain of soil?

As a side note, the school adjacent to the Blue Ribbon Nursery on the very short version of Santiago Road is constructed with mobile classrooms, why will the ground keep moving. It too is on a former dump site. If you drive down Santiago Canyon Road and take notice, right near the front of the fire house the road takes a little dip up and down. You see, the road keeps moving and periodically requires some repaving to keep it from cracking. And the city allows a school to be there. Makes one wonder.

With all of this being said, I am not even interested in the conversation pertaining to the zoning change or keeping within the OPA plan because it is plain as day, this property is not suitable for a housing development.

The liability that the city will have to absorb is enormous. One strong tremor in this area, a ground zero earthquake, and the methane gas will be released from its deep tomb. It's very clear. This property is a mining operation, not a housing development. A zoning change to allow homes is a risky and costly move. Let's keep it as it is and convert it to parkland open space as planned.

Regards,
Paul Andrews
**Paul Andrews (ANDREWS 2)**

*Response to ANDREWS 2-1*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only require analysis of potential physical impacts on the environment.

*Response to ANDREWS 2-2*
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to fault line and liquefaction are discussed in RDEIR Section 3.6, Geology and Soils. Please refer to Master Response 4—Dam Safety and Risk of Failure.

*Response to ANDREWS 2-3*
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

*Response to ANDREWS 2-4*
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.
Robert Garcia

From: Khalil Arshaid <drarshaid@yahoo.com>
Sent: Sunday, December 30, 2018 3:36 PM
To: Robert Garcia
Subject: Re: City Requesting Mabury Comments on Proposed Development

As a resident in mabury ranch I oppose the development of Santiago creek for the following reasons.

1. Extreme traffic jam at cannon st and Santiago rd.
2. Restricted fire evacuation routes during mandatory evacuation.
1. Environmental concern regarding airborne during construction of the property to the entire residents in mabury ranch.

Khalil Arshaid
Resident

Dr. Khalil Arshaid
714-262-8656

On Dec 9, 2018, at 3:20 PM, Preserve Mabury <preservemabury@gmail.com> wrote:

<PreserveMabury_header.jpg>
The City of Orange has given us until December 31st to submit comments regarding the recirculated draft Environmental Impact Report (DEIR) for the proposed Trails at Santiago Creek development. Please email or mail your comments to City of Orange Senior Planner Robert Garcia. His email is: rgarciacityoforange.org Letters/emails that were submitted previously will NOT be considered.

VERY IMPORTANT: Be sure to state your position (for or against the project) in the first line of your email/letter:

As you may know this project calls for 128 homes on a 40.7-acre parcel south of Santiago Creek on the former Sully-Miller property that borders Mabury Ranch. The City of Orange Liaison Committee, of which I am a member made a counter proposal of no more than 47 homes on the proposed 40.7 acre project site. The landowner Milan, rejected that proposal.

Instead the landowner is seeking to rezone this parcel from open space/resource to low-density single-family homes. As Milan’s representative has stated, Milan will sell the land to a builder, so there is no guarantee that only 128 homes will be built. This new zoning would allow 200+ homes if the builder is granted a new development agreement. What I have learned working in the building industry is builders almost always seek the MAXIMUM density allowed.

Concerns raised previously by Mabury Ranch homeowners include:

1) Restricted Fire Evacuation Routes – During the mandatory evacuations for the recent Santiago Hills II Fire some Mabury Ranch residents were stuck in a line of cars on Serrano (our only escape route) for 40+ minutes. Residents have expressed concern that another large housing development so close to us will hamper our efforts to escape via Santiago Canyon Road from Cannon & Serrano.
2) Increased Traffic – The intersection at Santiago Canyon Rd. & Cannon Street is a bottleneck at rush hour. Residents have complained of long lines of cars backed up to the cemetery on Santiago Canyon Rd. Any plan to add merging lanes will have little impact on the thousands of cars that access this intersection at peak traffic periods.

3) Environmental – For years this property has been used for mining, rock crushing, dumping, etc. We have no way of knowing what harmful contaminants will become airborne during construction. It will take an estimated 73,000 truck trips to import the hundreds of thousands of cubic yards of “clean” soil and export the silty soil. The landowner’s representative has also stated that any new homes may require methane monitors since the adjacent parcel at the corner of Santiago Canyon Road & Cannon Street contains active methane gas vents from the dump that used to exist there.

Currently the East Orange and Orange Park Acres specific plans adopted by the City of Orange call for this land to remain as open space. If you want to preserve this property please send your comments to Sr. City Planner, Robert Garcia at rgarcia@cityoforange.org

I recommend requesting a confirmation that your email was received. For the initial DEIR comment period, many of you cc’d me on your correspondence which is good if you want another way of documenting that your comment was successfully transmitted. You can cc me at: preservemabury@gmail.com

You can also mail your concerns re: RECIRCULATED DEIR FOR TRAILS AT SANTIAGO CREEK PROJECT to:

Robert Garcia
City of Orange Planning Department
300 E. Chapman Ave.
Orange, CA 92866

You can read the full recirculated DEIR here:

http://www.cityoforange.org/292/Project-NoticesRelated-Environmental-Doc

Comments must be received no later than 5:30pm, Monday December 31st.

Please let your voice be heard! This proposed development will have an irrevocable impact on Mabury Ranch.

Thank you,

Stephanie Lesinski
Khalil Arshaid (ARSHAID)

Response to ARSHAID-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17 and Master Response 5—Wildfire Risk. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.
Dear Robert,

Attached is a letter from Laura Thomas and myself as to issues with the Recirculated Draft EIR since we both have served as president of the Orange Park Acres Association. My time on the board and as president was in the 1970's when the Orange Park Acres Specific Plan was developed. I have lived in OPA since 1968. MY property is within the city boundaries at 1758 Windes Drive and backs up to Santiago Creek. Prior to that I had a horse where Taft ends at Cannon from 1961 to 1968 when Maybury Ranch was a working Orange Grove and Sully Miller was in full operation.

I would be available to meet with you to go over what I recall about how and why the plan was developed since I was part of the process.

Sincerely,
Kathy Ashford
Kathy Ashford (ASHFORD)

Response to ASHFORD-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.
December 30, 2018

Robert Garcia, Senior Planner
City of Orange,
Community Development Department, Planning Division
300 E. Chapman Avenue, Orange, CA 92866

Sent to: rgarcia@cityoforange.org

Re: Appendix D Orange Park Association Fieldstone Letter should not be relied on

Dear Mr. Garcia,

Having both served as President of the Orange Park Association Board of Directors and on the OPA Board for many years we felt the need to weigh in on a letter that is out of date and inaccurate.

We have reviewed the Recirculated Draft EIR for the Trails at Santiago Creek Specific Plan and were surprised to find a letter included in Appendix D from Orange Park Association dated May 28, 2003 from Tom Davidson, Orange Park Association Vice President to Ben Pruett, Chairman of the City of Orange Planning. There was no explanation or reason to include this outdated letter as the Orange City Council unanimously rejected the Fieldstone project in 2003 once citizens gathered enough referendum signatures opposing the project. Fieldstone is ancient history.

Looking back on this time it was fortunate people stepped up to oppose this project and were successful as had it been approved it would have set a very bad precedent for Orange Park Acres.

It was clear OPA lacked the needed planning and legal resources at the time to analyze the true impacts of the Fieldstone project let alone respond to the environmental documents. Unfortunately we relied on Fieldstone’s consultant for guidance.

The good news is Orange Park Acres learned a lot from the Fieldstone mistake and took the needed steps and corrective actions to better represent our community. We have hired the needed experts and legal team to help with developments issues as witnessed in our successes whether it be a referendum, a ballot measure or prevailing at the State Supreme Court as we did in the Ridgeline issue.

It’s important to understand neighborhoods like the Wilderness, Pheasant Run and Broadmoor only exist because they were annexed to the City of Orange in the seventies and owners secured development rights before citizens in OPA could object. OPA fought those battles but ultimately we were forced to accept subdivisions that were less than the
one acre lot requirement for Orange Park Acres. Once those developments were settled going forward anything less than R-1-40 has not been allowed. OPA learned important lessons during the Fieldstone era.

Keep in mind the OPA Specific Plan is very clear that the Sully Miller site is designated Open Space – Santiago Greenbelt Plan. Our plan does not allow for housing at that site.

The March 28, 2003 letter should be disregarded and not relied on for the Trails of Santiago Creek proposal, as it simply does not apply.

Laura Thomas
Former OPA President and Board Member (18 years)

Kathy Ashford
Former OPA President & Board Member (9 years)
Kathy Ashford and Laura Thomas (ASHFORD & THOMAS)

Response to ASHFORD & THOMAS-1
The commenter refers to a letter dated May 28, 2003, which the commenter requests should be disregarded. This comment is noted and no further response is required. The 2003 letter will be disregarded.

Response to ASHFORD & THOMAS-2
Comment noted. Please refer to Master Response 1—Plan Consistency.
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December 20, 2018

Mr. Robert Garcia, Senior Planner  
City of Orange  
300 E. Chapman Ave  
Orange, CA 92866

Dear Mr. Garcia,

This letter is for your review in consideration of my objection to a zone change for Orange Park Acres (OPA), and the proposed development, “Trails at Santiago Creek”.

OPA is a small area of land devoted to families who have horses and other livestock, and who enjoy the great outdoors on horseback. Those of us who board our horses there also get to enjoy the trails, although limited, and safety of places to ride.

A huge fear for me, as we experienced last year, is getting all the animals evacuated in case of fire. OPA Boulevard was already packed with horse trailers, extreme chaos, loose and terrified horses, and simply no: enough room to maneuver horse trailers and help while trying to evacuate the hundreds or more of horses, cows, donkeys, sheep, goats, etc. Bringing in hundreds more people to live in this area will put us in a much more dangerous evacuation situation.

Please consider my opposition to a zone change in this beautiful community and limit the dangerous threat to our safety during fire season and the need for immediate evacuation.

Sincerely,

Alicia Bausley  
511 S Golden Sky Lane  
Anaheim Hills, CA 92807
Alicia Bausley (BAUSLEY)

Response to BAUSLEY-1
Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to land use and planning are discussed in RDEIR Section 3.10, Land Use and Planning.
Dear Mr. Garcia,

As a current resident of Mabury Ranch and the City of Orange, MY WIFE AND I ARE STRONGLY OPPOSED TO THIS DEVELOPMENT. We respectfully urge you to reject this proposal.

1. **Traffic in this community is already heavy** at peak hours of morning and late afternoon-evening. Getting home is already a challenge and sometimes we have to wait for 2 traffic signals to exit our neighborhood most mornings since the traffic coming from the east on Serrano “blocks the box” at Mt McKinley so only one or two cars can exit per signal. Milan wants us to have more congestion??

2. **Traffic congestion can be an issue in the event of emergencies.** We already have seen this scenario happen THIS year at Paradise, California. We have had to evacuate 4 times in our 14 years of living here at Mabury. Our neighborhood has been a staging area for 6-10 fire engines each time since this is a strategic location to battle/contain the canyon fires. Canyon winds are capricious and the ability of fire crews to move quickly is a real safety issue for our community. As I write this, SCE just called to warn us of high winds and evacuation alerts!

3. **Traffic congestion can spread in evacuations.** Traffic moves quickly once getting to Villa Park Road/E. Santiago Canyon. With another development (Irvine Company) coming, Milan’s proposal could quickly saturate those evacuation routes.

4. **Don’t the East Orange and Orange Park Acres SPECIFIC PLANS call for this land to remain open space?** We bought here knowing that. Milan’s proposal would remove from us realistic expectations for us to enjoy our home.

5. **The last time this drama was brought to the City Council, I watched as Milan’s representative had no answer for many of its draft environmental responsibilities.** As residents of Orange we really don’t want to be “on the hook” for their failure to plan wisely.

Thank you for your consideration. We again Strongly Urge you to not pass this proposal.
Sincerely and Respectfully,

Gary and Diane Benson
Gary and Diane Benson (BENSON)

Response to BENSON-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to BENSON-2
Comment noted. Please refer to Master Response 1—Plan Consistency.
Robert Garcia  
Senior Planner  
City of Orange  
Community Development Department, Planning Division  
300 E. Chapman Avenue, Orange, CA 92866  

12/28/2018  

COMMUNITY DEVELOPMENT  
RECEIVED  
JAN 02 2019  
CITY OF ORANGE  

Dear Mr. Garcia,

Regarding the Recirculated DEIR involving the property we all know as Sully-Miller; suffice to say it does not even come close to addressing the size and scope of the problems at that site.

- The backfilling claims are incorrect.
- The site is known to have hazardous and contaminated materials yet no one from the city or your department has asked the property owner, “How are you SPECIFICALLY going to remove these hazardous materials?”

Mr. Garcia, won’t excavating these materials cause toxins to be released into the atmosphere creating health hazards for all the surrounding area’s residents? In today’s litigious society you can bet if anyone gets cancer or develops any kind of health issue, for that matter, the city is going to be on the hook for millions of dollars in lawsuits.

Using it’s own information located in the appendices the RDEIR severely underestimates the number of truck trips required to prepare this site. Don’t they read their own research?

Mr. Garcia, I will not take up anymore of your valuable time pointing out all of the flaws in this document. Here’s the deal, Milan bought this property along with the other two on the cheap looking to triple or quadruple their investment through a zoning change. The majority of the residents did not want this zone change and we went all the way to the California Supreme Court and won to prevent it. We’ll do it again if necessary.

Sincerely,

Michael Bonnaud  
7136 E. Grovewood Lane  
Orange, CA 92869
Michael Bonnaud (BONNAUD)

Response to BONNAUD-1
Comment noted. Impacts related to hazards are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials.

Response to BONNAUD-2
Comment noted. For impacts related to truck trips, please see Master Response 9–Soil Import/Export Numbers. Impacts related to zoning are discussed in RDEIR Section 3.10, Land Use and Planning.
December 31, 2018

Robert Garcia, Senior Planner
City of Orange
Community Development Department, Planning Division
300 E. Chapman Avenue
Orange, CA 92866

RGarcia@CityofOrange.org

RE: Trails at Santiago Creek/Recirculated Draft Environment Impact Report

Dear Mr. Garcia:

My home will be directly impacted by this project and I offer the following comments in response to the Recirculated Draft Environment Impact Report ("RDEIR").

The RDEIR, as currently proposed, exceeds housing density limitations of the OPA Specific Plan and also impermissibly conflicts with the densities of surrounding communities. I understand the applicant and OPA continue to negotiate the number and density of homes proposed for the project, which I hope will reduce the density to a figure that complies with the OPA Specific Plan.

I find particularly concerning the fact that the RDEIR does not properly analyze the presence of toxic chemicals in the soil (presumably reaching the groundwater as well) on the project site, including, but not limited to, trichloroethylene ("TCE"), asbestos, and petrochemical hydrocarbons. No analysis is made of the contamination, and no reclamation plan addresses the contamination that poses great human health hazards. This is particularly concerning when runoff from the project site enters Santiago Creek and travels through the nearby settling ponds which are under Orange County Water District ("OCWD") jurisdiction. Those settling ponds play a significant role in recharging the aquifer basin, which in turn supplies drinking water to large portions of Orange County.

Other defects in the RDEIR include:

- Misstatements regarding traffic impacts caused by the project, both as to the number of trips that will be added with the increased number of homes, as well as an improper deduction based on mining activities that have already ceased.
- Misstatements regarding removal and replacement of fill, and the resulting number of necessary truck trips.

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1 I am currently the President of the Orange Park Association. However, I send these comments personally on my own behalf, as an impacted resident. I concur with the comments stated in the December 28, 2018 letter from Laurel Impett of Shute, Mihaly & Weinberger, sent on behalf of the Orange Park Association.
• Misstatements regarding the impact of construction and the final project on air quality in the area and greenhouse gas emissions.

• The proposed project fails to incorporate policies required in the OPA Specific Plan for, among other things, sidewalks, street lighting, equestrian and other animal keeping facilities, etc.

• The RDEIR and related documents fail to provide sufficient detail regarding the public benefits proposed by the applicant; to what entity will the payments be made? What is the timing of the payments? What ongoing maintenance will be provided for the public benefits proposed?

The defects in the RDEIR are serious and render the RDEIR uncertifiable by the City of Orange. The defects are not minor deviations from CEQA – rather, they are serious defects that must be remedied in a further recirculated DEIR. If the City of Orange certifies the RDEIR as currently proposed, this will subject the City of Orange to litigation for CEQA violations. As I am sure the City already knows, OPA is a very active community both politically and otherwise, and there would be no shortage of potential plaintiffs in the event the RDEIR were to be certified as is.

That said, I remain hopeful that the negotiations with Milan will both reach an accord on the housing density for the project, as well as remedy the defects in the current RDEIR by way of further revisions. There are great potential public benefits to this project, both for OPA and the City and County of Orange. If the housing density and CEQA issues can be resolved, I look forward to seeing a project that has positive public benefits.

Donald E. Bradley
20112 Hillside
Orange, CA 92869
Donald E. Bradley (BRADLEY 1)

Response to BRADLEY 1-1
Please refer to Response to SMW-15.

Response to BRADLEY 1-2
Please refer to Response to Stichter-7, Master Response 7—Applicability of SMARA, and Master Response 8—Site Environmental Conditions. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, the 2011 Tait Phase II ESA determined that asbestos, which was previously located on the project site as indicated by the 2000 and 2009 Phase I ESAs, no longer exists. Mitigation Measure HAZ-2a requires a Phase II Environmental Site Assessment to be conducted for the project. Any hazardous soil conditions identified by the Phase II ESA will be abated in compliance with clean up goals for unrestricted land use, or the Applicant will be required to implement a land use covenant and long-term operations and maintenance plan approved by DTSC. These requirements would ensure that runoff from the project site would not be contaminated and would not affect drinking water supplies.

Response to BRADLEY 1-3
Please refer to Response to SMW-17.

Response to BRADLEY 1-4
Please refer to Master Response 9—Soil Import/Export Numbers.

Response to BRADLEY 1-5
Please see Response to Villa Park-7.

Response to BRADLEY 1-6
Please see Master Response 1—Plan Consistency.

Response to BRADLEY 1-7
Please refer to Master Response 6—Stewardship of Open Space.

Response to BRADLEY 1-8
Comment noted. The comment consists of conclusory remarks. Commenter does not elaborate further on why the RDEIR fails to meet the requirements of CEQA; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.
Hi Mr. Garcia,

I would like to make it known that Milan Capital continues to try and push the city of Orange and the citizens that have chosen to live here for far too long.

The recent resubmission of the EIR does not address the many concerns of the community and Milan refuses to listen to what the citizens are saying. They city is also starting to turn a deaf ear on the people most impacted by this proposed development, perhaps they have ignored the horrible operations run on the Sully Miller site over the many years hoping a developer would remove the potential lawsuits that are about to unfold.

It is time for the city of Orange to step up to the plate, take responsibility for what it must and not be sold out for what looks like a solution to a long standing health issue, build, develop, and “donate” all the properties involved.

The traffic on Santiago Canyon Road CANNOT handle any more traffic, period. Even if this “sell out” sounds like a good idea the fires from 2017 have proven that traffic is out of control in critical times, and in commute hours. People cutting through Orange Park Acres (on OP Blvd) from the toll road to Santiago Road during rush hour is horrible too. The safety of the community is not being considered. The lane proposed does not solve the problem, adding more vehicles is simply going to put us back in the same position we are in now.

The proposed development is not taking into account the the danger of placing homes in a flood and fire plane. Have we not had enough examples of this in the last decade?

The proposed plan also involves making changes to the OPA specific plan, placing homes on land that is not for that purpose-I could care less about giving OPA an arena and money to develop Ridgeline golf course. The golf course property is already zoned for recreational open space, thanks to higher courts agreeing to this.

Please do the work and reject this RDEIR. I am not rejecting to just reject, the plan has many faults and needs work.

Toni Bradley
20112 Hillside Dr
Orange, CA
**Toni Bradley (BRADLEY 2)**

*Response to BRADLEY 2-1*
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

*Response to BRADLEY 2-2*
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

*Response to BRADLEY 2-3*
Comment noted. Please refer to Master Response 1—Plan Consistency.
Dear Mr. Garcia: I am very against the proposal for the Sully Miller project. Traffic is already horrendous. Sometimes it may take 45 minutes to get home from my mother's home who only lives 9 minutes away without traffic. This new proposal will only make it worse! My time is important, however, what is more important is safety! There was a major traffic jam last October when we had to evacuate for the fire! As we saw with the recent Paradise fire, people couldn't escape and burned in their cars.

Please carefully consider the safety issues of this proposal. Our fire threat is real and overbuilding will only cause more traffic than this area can handle. We count on our elected officials to look after us and keep us safe which is much more important than making a builder more money!

Respectfully,

Cathy Brodsky
Mabury Ranch Resident
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Cathy Brodsky (BRODSKY 1)

Response to BRODSKY 1-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. For impacts related to fire hazards, please refer to Master Response 5—Wildfire Risk. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
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Dec. 21, 2018

Dear Orange City Council,

I understand that in the near future you will have the “Sully Miller” area off Santiago Cyn. Road on your agenda. I am sure each of you recognize this specific area as a complete eyesore.

The owner has made several offers to the community to resolve this issue, suggesting building homes and establishing a large park.

I am 100% supportive of his recent offer and hope he receives support and encouragement from this Council.

Thank you for your professional efforts to keep Orange moving in the Right direction. It must be an exhausting job!

Kindly,

Jackie Brodsky (Santiago Hills)

8144 E. Candleberry Circle

Orange, CA 92869
Jackie Brodsky (BRODSKY 2)

Response to BRODSKY 2-1

Comment noted. This comment supports the development of the project. No further response is necessary.
Hello, We live off of Serrano/Orange Park Blvd, in Hidden Oaks by Mabury Ranch in Orange. The traffic has become a nightmare from people cutting across from the 91, 241, and 5 freeway, and also Jamboree and going through our neighborhood roads to do this. There is gridlock on several occasions and after the fires in our neighborhood, the roads were packed with no way of getting out if we had to all at once.

My point of all this is, with no new roads coming through here, the idea of more homes, more cars, more people with the Sully Miller project is ludicrous. Please do not let this happen. Thank you Michele Brown
Michele Brown (BROWN)

Response to BROWN-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Ercell Bryant <ercell@att.net>
Sent: Monday, December 31, 2018 12:21 PM
To: Robert Garcia
Subject: Trails at Santiago Creek project

December 31, 2018

Mr. Robert Garcia
Sr. City Planner

Subject: AGAINST the Trails at Santiago Creek project

Dear Mr. Garcia:

I am AGAINST the Trails at Santiago Creek project. I live at 1702 N Williamsburg St and access in and out of the cul-de-sac at Lexington and Cannon Ave. The traffic on Santiago Canyon Road and Cannon Ave has become unbearable in the morning and evening commute time. At times the traffic will back up from Taft Ave to Santiago Canyon Road (both Lanes) extending across Lexington Ave making it impossible to exit our cul-de-sac. If a Fire or Medical Emergency were to occur during this time of day first responders would be delayed endangering lives. Something must be done to find other routes for the traffic before any additional housing is added or future expansion of Santiago Canyon College is approved.

Regards,

Carmen Ercell Bryant Jr.

1702 N Williamsburg St

714-290-2498

ercell@att.net
Ercell Bryant (BRYANT 1)

Response to BRYANT 1-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
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December 31, 2018

Mr. Robert Garcia
Sr. City Planner

Dear Mr. Garcia,

I live in the Colony, which is a cul-de-sac that opens onto Cannon Street. It is impossible to get out or into our street with the traffic now without more houses added. It says do not block in front of our street, but no one pays any attention to it. It can take at least a half hour or more to get out during the busy time of the day. I have 16 year triplets living with me, who will get their drivers licenses in February and we have other teenagers on the street that I fear for. It is scary for us as adults to get out of the block. There was talk many years ago about taking Jamboree thru to Serrano, isn't there another option. When I bought here the street did not go through. I was notified that it would but the traffic is absolutely dangerous. So many of the people turn onto Serrano that it really jams it up. Please do not allow this to happen, if a fire were to happen we would have a terrible time getting out and fire trucks in. We have been evacuated 4 times due to fire since we moved here. Please come and sit on our block and watch the traffic to see what we are up against. Thank you for your consideration.

Sincerely,
Sharon L. Bryant
1702 N. Williamsburg Street
Orange, CA 92867
714-393-8816
louisebry@att.net
Sharon L. Bryant (BRYANT 2)

Response to BRYANT 2-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Thank you for taking the time to address my concerns and please include it for consideration in the RDEIR Trails at Santiago Creek specific plan dated 11-14-2018. Please include it to the Planning Commission and the City Council.

First, I would like to note that I am supportive of getting rid of the sand and gravel operation and having trails that I could access from my house (Jamestown/The Colony) from Nicky Way. Though, I would prefer no additional homes to be added to our part of the city, I would like the eyesore removed. That being said...

Concern #1:

128 houses is too much, especially since this property wasn’t zoned originally for homes. Hopefully the developer can work more closely with the community to find a solution that benefits all neighborhoods. In reading the many letters submitted after the scoping meeting (which our neighborhood knew nothing about) and the first circulation of the DEIR, so many letters were not in favor of any homes. Others were in favor of less than 50. The zoning for this proposal is not completely accurate. Here are some examples:

RDEIR Exhibit 3.1.1 shows a photo of “single family residence south of Santiago”, this location is not directly across from the development, this photo shows homes on Cabrillo St. which is further away from the development and directly across from the Villa Park Land fill. Those homes are not a representation of what is across and near the proposed development. An actual picture of the Jamestown entrance would be more accurate of what is across from the site. Jamestown Way is directly across from and lines up with the West end property line of the Milan property.

The Jamestown Area/The Colony homes that are near the arena directly across from the development (east of Jamestown Way) are 10,000 Plus sq. ft. and 20,000 Plus sq. ft. The less than 10,000 lots are further away from this proposed development. Also, directly across is the arena, zoned and recently approved for 1 acre lots and even more 1 + acre lots adjacent and behind the arena. The Reserve community is zoned 1 acre lots also. These neighborhoods should all be included in the parameters the proposal is using to make the project more consistent with the surrounding areas. Especially since the project is proposing to move homes to the southern portion and away from Mabury, lessening Mabury’s influence on lot sizes.

A mixture of 8,000-9000 +sq. ft., 10,000 + sq. ft., 20,000+ sq. ft. and 40,000 sq. ft. lot sizes would be a better mix and reflect the surrounding neighborhoods accurately.

RDEIR 2.1.4 shows Land use designation. The exhibit 2-7 and 3.11 (appendix Q) indicates to the south of the development is R-20 and R-40 zoning but the RDEIR says homes are in the 7,000-10,000k. This is not correct and is inconsistent with the map and what is actually there. Why is it that this area directly across from the development is repeatedly not called out correctly in the RDEIR?

The RDEIR has exhibits showing lots sizes for neighborhoods around the development but the Jamestown one is left out and only included in the Appendix Q as Exhibit 3.11. Is this in hopes that the community only reads the main portion of the RDEIR and doesn’t look at the Appendix Q? The ones that were included are: Exhibit 2-5a West of Cannon Community Lot Sizes which is further away from the proposed homes then Jamestown/Arena area. Exhibit 2-5b Creekside Ranch and the Colony North Lot Sizes. Also Exhibits 2-5c,2-5d,2-5e Mabury Ranch 1,2,3 Lot Sizes. Exhibit 2-5f The Reserve Lot Sizes and Exhibit 2-5g Orange Park Acres Lot Sizes that show homes past OPA Blvd. and across from The Reserve not the proposed development.
Concern #2:

In the RDEIR and other appendices, Public outreach and meetings were said to have occurred many times over the last few years, but the The Colony/Jamestown (officially we are The colony but referred in this RDEIR as Jamestown) were not included in these discussions with the developer. The Colony/Jamestown neighborhood should have been canvased.

Concern #3

Another concern is about the development having an HOA. What will stop this new community from gating themselves off and not allowing public access to trails as has happened in the past. This community must remain open and un gated to keep the trails and the entrance at Nicky accessible to the public. Especially since the RDEIR indicates that if another public or private entity does not take maintenance responsibility of the open space, it will be the responsibility of the HOA as stated in Appendix Q 8.4.1. HOAs are not usually equipped with expertise in managing open space and creek restorations and control.

Nothing should be approved without final knowledge of who will be taking care of and funding the trails/Open Space and giving those entities time to review the plans and the area. In an effort to know what they are signing on to take care of from this proposal. For example, if OC Parks were to take care of it, Milan needs to contact them and have a discussion. Which I have not seen anywhere that they contacted any entities concerning maintenance. All the trails need to be completed before the first owner moves in, so that we may have assurance that what is promised to be built will be built.

Concern #4

In the RDEIR Appendix Q Trails specific plan, 6.4.6.1- Mabury Ranch, there is reference that Mabury ranch wants limited access to the Mabury trail from the Open Space and the fence between the Mabury trail and the Milan property to remain in place.

_In the section 6.4.6.1 Mabury Ranch it states:

"Representatives from Mabury Ranch have indicated their desire to have limited access from Mabury Ave. to Planning Area A, the Greenway Open Space and associated trail network by retaining the existing chain link fence or installing something similar. Therefore, following approval of this Specific Plan and prior to Site Plan and Tentative Tract Map submittal, the final design of the Mabury Ranch edge condition will be accomplished via a collaborative effort involving representatives of Mabury Ranch, the City of Orange, appropriate trail committees and the project representatives."

There should be enough access to be able to travel in different trail loops on the Trails at Santiago property including the Mabury trail, which should be accessed from different points along the trail from Mabury and the Trails at Santiago Creek side. That would allow for many variations on the hikes one could have out in the open space. The Trail is adjacent to Mabury Ave which is a public street. Any approval of this plan should include at a minimum the 4 openings to the Mabury trail (Trail C) (already existing) from both directions of Mabury Ave and the Green way open space area A. Exhibit 2-11 Greenway, open space and trail plan shows 5 connections to be used to access the Mabury trail. Decision on what the trail connections will be to Mabury Trail should be completed before approval of any plan not after. All the trails should be considered public access including the Mabury trail.

Concern #5

Creating a Trails at Santiago Creek specific plan and taking away the OPA plan from that area is concerning to me. There has been a plan in place for our part of the city to continue the look and feel we have grown
to love. As much as I appreciate the level of detail the specific plan goes into in Appendix Q (yes I read it) 128 homes is still too high. Especially since the zoning is not comparable with the closely surrounding areas OPA, The Reserve, Jamestown/The Colony and the homes off of Nicky way near the arena. Plus the arena (approved for 1 acre homes).

How do residents get assurance that if the Milan sells the property that the new owner will abide by the provisions in the RDEIR and The Trails at Santiago Creek Specific Plan?

Concern #6

Impact reports indicate that construction should be kept to Daylight hours. But later on in the RDEIR mitigation requirements it indicates construction is 7am to 8pm. Daylight hours during certain times of the year ends around 5pm. Construction should cease when the daylight does, not the 8pm time frame. This is an inconsistency that I feel needs to be corrected and the city to enforce.

Concern #7

Traffic is absolutely horrible on Santiago Blvd. Those of us living off of the Jamestown entrance to The Colony, on a daily basis avoid making a left turns onto west bound Santiago, due to a blind turn and high speeds. We even avoid right turns during really busy times. Instead we are forced to travel through the neighborhood to leave using Cannon. This causes more traffic for the Linda Vista Elementary school, which is unsafe for the children.

If a traffic light is placed at Nicky, there needs to be a “Keep Clear” painted on East Bound Santiago road in front of the Jamestown entrance. Otherwise when the light is red, we will never be able to get out that way. The city needs to make sure that the developer completes road improvements before the first occupancy.

Concern #8

I have concerns over the air quality we will have during this process, the city needs to make sure all mitigation measures are being implemented.

Concern #9

The pre-development agreement indicates that the operations- stockpiling would cease during community outreach and meetings. Yet, I can see trucks and bulldozers upon the hill dumping from my home. The promised decrease in the size of the hills (piles of dirt) has not happened, in fact the hills are larger.

In Summary, the information in the RDEIR needs to be accurate for the community to be able to make comments. It is very important that Milan goes back and corrects inaccuracies that I indicated and those from other written comments. So that we have all the facts before we agree to rezoning and bringing in homes. I would like to clean up the area and bring a wonderful open space area for all of us to use and welcome a plan that benefits the community without sacrificing what we have grown to love.

Thank you for taking the time to read my concerns,

Lucy Busby
1489 N. Portsmouth Circle,
Orange, Ca 92869
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Lucy Busby (BUSBY 1)

Response to BUSBY 1-1
Comment noted. This comment states that 128 houses is “too much.” This comment is noted and will be provided to the City decision makers for their review and consideration in determining whether to approve the project, and what conditions of approval to consider in connection with that decision.

Response to BUSBY 1-2
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to BUSBY 1-3
Please refer to Response to SMW-15.

Response to BUSBY 1-4
This comment suggests that a mixture of 8,000- to 9,000-square-feet; more than 10,000-square-feet; more than 20,000-square-feet; and more than 40,000-square-foot lot sizes would be a better mix and reflect the surrounding neighborhoods accurately. This comment is noted and no further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to BUSBY 1-5
Comment noted. As discussed in RDEIR Section 2, Project Description, page 2-33, East Santiago Canyon Road, a four-lane, divided roadway, forms the southern boundary of the project site. Detached single-family dwelling units associated with the Jamestown neighborhood (typical lot size 8,000–11,000 square feet), Orange Park Acres (typical lot size 50,000 square feet to 1 acre plus additional square footage), the Fairhills Eichler Homes (typical lot size 7,600–12,000 square feet), and The Colony-South (typical lot size 7,000–10,000 square feet) are located south of the roadway. The Mara Brandman Arena is located at the intersection of East Santiago Canyon Road and North Nicky Way.

Response to BUSBY 1-6
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to BUSBY 1-7
Please refer to Master Response 6—Stewardship of Open Space.

Response to BUSBY 1-8
Please refer to Master Response 6—Stewardship of Open Space.

Response to BUSBY 1-9
This comment suggests that any approval of the Trails at Santiago Specific Plan should include at a minimum the existing four openings to the Mabury Trail (Trail C) from both directs of Mabury Avenue and the Greenway Open Space, Area A. The project Applicant proposes on-site trails with
points of connection at the project boundary with the intent that off-site extensions and connectivity to other trail systems will be by other entities or agencies. This comment is noted and will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to BUSBY 1-10
Comment noted. Please refer to Response to SMW-15. Pursuant to CEQA Guidelines Section 15163, a supplemental/subsequent EIR is necessary if there is a change in the project or circumstances, or new information that was not known previously indicates the project will have a significant effect on the environment that was not covered in the previous EIR. The Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR to make minor additions or changes necessary to make the previous EIR adequately apply to the project in the changed situation.

Response to BUSBY 1-11
Pursuant to Public Resource Code Section 21081.6(a); Guidelines Section 15091(d) and 15097, a Mitigation Monitoring and Reporting Plan (MMRP) will be adopted by the City of Orange, upon project approval. The reporting or monitoring program must ensure compliance with mitigation measures during project implementation.

Response to BUSBY 1-12
Comment noted. Please refer to Response to SWM-17 and RDEIR Section 3.16, Transportation and Traffic.

Response to BUSBY 1-13
The commenter does not elaborate on the concerns they have over the air quality during this process. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Please see Response to BUSBY 1-11 regarding implementation of mitigation measures.

Response to BUSBY 1-14
As discussed in Appendix A, as a component of the Pre-development Agreement, the Developer is committing to lower the material stockpiles on the site. This significant public benefit is being provided by the Developer in advance of obtaining any land use approvals. Per the agreement, the Developer will have 90 days to prepare and submit to the City a stockpile reduction plan (“Interim Remediation Plan”). The agreement allows the Developer to discontinue the Interim Remediation Plan should they withdraw their land use entitlement application.
December 20, 2018

Mr. Robert Garcia
Senior Planner
City of Orange
300 E. Chapman Avenue
Orange, CA 92866
rgarcia@cityoforange.org

RE: “Trails at Santiago Creek Specific Plan” Recirculated Draft EIR

Dear Mr. Garcia,

I am submitting this comment letter regarding the Recirculated Draft Environmental Impact Report dated November 14, 2018 for the Trails at Santiago Creek Specific Plan (the “RDEIR”). I live in The Colony neighborhood just south of the property site. My main interest in any development project for this site would be to permanently stop any further rock and gravel operations and replace it with a reasonable solution for the surrounding neighborhoods. This proposed project calls for too many homes with zoning that is inconsistent with the adjacent neighborhoods. I could support a proposal for a housing development that includes a reasonable number of homes properly zoned to match the immediate surrounding area that include the necessary landscaping, trail and open space, and environmental improvements.

Below are some significant concerns I have with the RDEIR, proposed project, and mining situation:

**Land Use and Surrounding Land Use:** The proposal for 128 homes on this site is a significant departure from the current zoning of “Open Space”. While proposed density is consistent with the density in Marbury Ranch to the north it is inconsistent with the density of immediately adjacent homes in Orange Park Acres and The Colony to the south and The Reserve to the east.

Any proposed development on this site should be consistent with the properties immediately adjacent to the site, which would include a more balanced mix of R-1-8 and R-1-10, as well as, R-1-20 and R-1-40 zoned properties. As a result, a 40 acres project on this site would have fewer homes than the proposed project.

The RDEIR fails to accurately describe the surrounding areas to the south, referring to Exhibits 2-5 and 2-7,

- The homes to the south off Nicky Way (including Mara Brandman Arena) and The Reserve to the east are part of Orange Park Acres and currently zoned R-1-40. In my opinion, the Exhibit 2-5g is not an accurate depiction of the vast majority of lot sizes in the Orange Park Acres community (typically 1 acre lots) and more specifically the adjacent homes off Nicky Way.
- The homes to the south between Nicky Way and the proposed site eastern property line is “The Colony” neighborhood (referred to as “Jamestown neighborhood” in the DEIR). The Colony
directly to the south of the site is comprised of 53 single-family homes zoned R-1-8, R-1-10, and R-1-20 with an average lot size greater than 10,000 square feet. This neighborhood built in the late '70s along with the Colony-North and the Colony-South neighborhoods. Detail view Exhibits 2-5(a-g) in the RDEIR depicting all surrounding neighborhoods except "Jamestown neighborhood" which has been ignored or purposely omitted from the main RDEIR. Instead, an exhibit has been separately included in Appendix Q Exhibit 3.11.

- The homes to the south extending east of the proposed site eastern property line and south of the Villa Park Landfill (also referred to as "Jamestown neighborhood" in the DEIR) are zone R-1-8 and built in the '60s along with the Eichler homes that extend further to the east.

Clearly, the projects lot sizes are inconsistent with the surrounding neighborhoods to the south and east.

Community Outreach: Throughout the RDEIR there are multiple references to "community outreach with representatives of the adjacent neighborhoods", however, to my knowledge there has been very little to no communication or canvassing efforts to seek input of the Colony / "Jamestown area" residences performed by the developer or by the City. In fact, there are few references to the "Jamestown area" in the RDEIR a neighborhood directly adjacent to the project.

Nuisance Conditions: The hills of dirt and debris on the property from the sand and gravel operations are nuisance and eyesore created by the property owner who is now asking for development concessions. The noise and dust created by trucks and bulldozers that I can see from my home are ruining the peace and tranquility of the area. This should never have been allowed to happen. In my opinion, the size of the hills and stockpiling appear to be increasing.

Impairment of View: The stockpiles of dirt and debris are currently impairing the view of the surrounding neighborhoods. The stockpiles need to be removed and/or levelled out. This should be immediately addressed regardless of whether or not this is part of any development of the site.

The RDEIR indicated the project "... will be raised above the 100-year flood elevation" however I would like clarification on the final elevation and height restrictions of the project and if this would impair the views of surrounding neighborhoods.

Site Remediation: I would like the City to make sure that the proposed site is cleaned and put back to a natural state (free of hazardous mining debris and waste material) as part of any approval of any development of this property.

Care and Maintenance: From the DEIR it is unclear who is ultimately managing and caring for the proposed trails, open space, and creek. In Appendix Q Section 8.4, the open space could be conveyed to the County. However, my understanding is that the County has made no commitment for long-term stewardship of the project open space, creek, and trails. So by default, care and maintain would fall to the projects HOA. Will the HOA be properly equipped to care for trees, plants, trails, open space, and
creek in perpetuity? The cost of restoration and continued maintenance should be part of any project approval.

**Public Access to Open Space:** I would like the City to make sure that the proposed site remains open and accessible to the public via trail access points at underpass Cannon Street, Santiago Canyon Road, and Maybury Avenue and that an HOA would not be able to gate or otherwise block public access to the Open Space and trails system.

**Traffic and Roadways:** The volume on Santiago Canyon Road has a significantly negative impact on the residence of the area. I, as well as many of my neighbors, enter and exit our neighborhood from Cannon Street instead of utilizing the busy Santiago Canyon Road (avoiding either a blind left: turn or high-speed traffic at Jamestown Way).

The project is estimated to have 275,400 total haul trips during the grading period, however, there is no analysis on the effects these haul trucks will have on local roadways and intersections.

I would like clarification of any impacts to the existing left hand turn lane for westbound Santiago Canyon Road traffic turning onto Jamestown Way. In addition, a “Keep Clear” road demarcation for eastbound Santiago Canyon Road traffic (backing up to the proposed stop light at Nicky Way) would help improve the utilization and safety at the intersection at Jamestown Way.

The widening and restriping effort by the City and Developer of Cannon Road is welcomed and appreciated by many area residents. I hope that this is sufficient to alleviate some of the peak hour traffic.

Thank you for your attention to these comments to the RDEIR for the Trails at Santiago Creek.

Respectfully,

Todd Busby
1489 N. Portsmouth Circle
Orange, CA 92869
Todd Busby (BUSBY 2)

Response to BUSBY 2-1
Comment noted. Please refer to Response to SMW-15.

Response to BUSBY 2-2
Comment noted. Please refer to Response to BUSBY 1-5.

Response to BUSBY 2-3
Comment noted. Please refer to RDEIR Exhibit 2-5, Surrounding Properties with Lot Sizes Under 10,000 sq. ft., for surrounding areas to the south of the project site.

Response to BUSBY 2-4
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to BUSBY 2-5
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to BUSBY 2-6
Comment noted. The project will be required to comply with the City of Orange Zoning Code concerning building height restrictions. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to BUSBY 2-7
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-13, Mitigation Measure HAZ-2b requires that the project Applicant, prior to issuance of grading permits, “... shall retain a qualified hazardous materials contractor to remove all soil containing TPH in excess of residential development standards set forth by the DTSC or other applicable regulatory agency. Soil removal and disposal shall occur in accordance with DTSC (or other applicable agency) guidelines. The Applicant shall submit documentation to the City of Orange in the form of confirmatory soil sampling results verifying that this mitigation measure was successfully implemented as part of the grading permit application for this property. All environmental investigations, sampling and/or remediation for the project site shall be conducted under a workplan approved and overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup, such as the RWQCB. As part of proper construction operations and maintenance, any construction areas that are found to contain contaminated soils shall be excluded using a security fence. All contaminated soils shall then be excavated and disposed of off-site in accordance with the rules and regulations of: US Department of Transportation (USDOT), USEPA, CalEPA, CalOSHA, and any local regulatory agencies. All retention and detention features used during construction would be lined to prevent infiltration through contaminated soils. Post-construction retention features shall be lined to prevent infiltration of groundwater.”

Response to BUSBY 2-8
Please refer to Master Response 6—Stewardship of Open Space.
Response to BUSBY 2-9
As discussed in Appendix Q, Trails at Santiago Specific Plan, the majority of the project site (62.7 percent) is intended for the enhancement and preservation of the natural greenway/open space and Santiago Creek environs (Planning Area A) in the northern portions of the project, as well as re-establishing open grasslands in the easterly portions of the site (Planning Area B) in areas that have been denuded by the project site’s history of commercial operations. Recreational trails will traverse both Planning Areas and will provide public access to the site.

Response to BUSBY 2-10
Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
December 25, 2018

Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Avenue
Orange, CA 92866

RE: Trails at Santiago Creek

Dear Mr. Garcia,

I am writing this letter to say that I am highly opposed to the development called “Trails at Santiago Creek”
I live in The Wilderness community off Windes Drive. I must face the current traffic problem daily on Santiago Canyon Blvd. I cannot imagine adding any more traffic to this mess. I can barely get anywhere in the morning or evening.
I am also aware that the development threatens my safety because of the traffic issue. It also threatens open space and zoning in Orange Park Acres.

Again I am highly against this development called “Trails at Santiago Creek”

Sincerely,

Sharon Butterfield
Orange Park Acres
Sharon Butterfield (BUTTERFIELD)

Response to BUTTERFIELD-1

Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
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Mr. García,

I am an owner at 2018 N Lake Mead Circle in Maybury Ranch.

My family would be fine with the 47 home only proposal and it may be beneficial that you come to our area during the morning and evening commute.

Our traffic is already a huge concern, we have limited escape routes if an emergency occurs and we do not have a sufficient environmental compliance and impact study that puts Maybury Ranch in the clear.

Thank-you for taking the time to hear our concerns.

Mark W Capurso
Operations Director
7352 Slater Ave, Huntington Beach, Ca
Office: 714-375-6736
Wireless: 925-639-8653

This communication is confidential. Frontier only sends and receives email on the basis of the terms set out at http://www.frontier.com/email_disclaimer.
Mark Capurso (CAPURSO)

Response to CAPURSO-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Mary Carlson <mary.e.carlson@live.com>
Sent: Tuesday, December 18, 2018 8:04 PM
To: Robert Garcia
Subject: Oppose Trails at Santiago Creek

Robert Garcia, Senior Planner
City of Orange
300 E Chapman Avenue
Orange, CA 92866

Good evening Robert,

I oppose the development called “Trails at Santiago Creek”. I drive along Santiago Canyon Blvd from Newport Avenue to Hughes Avenue every evening during rush hour and the traffic is insane. I drive it anywhere between 4pm and 6:30pm and it never gets better. The back-up starts well before Windes / Meads Ave and doesn’t stop until after Cannon Ave. It takes me 5+ signals to get past Cannon Ave. The back-up is the absolute worst right where the Trails at Santiago Creek project would be located. The residents wouldn’t even be able to get out of their tract! They’d be backed up trying to make a right and waiting for people that stop in the intersection. Adding another light there would even add to the insanity and the back-up. In an emergency, when there is an accident, or when we need to evacuate, emergency vehicles could barely get in. If you, the City Council, and the Planning Committee have not driven this route recently during rush hour, I urge you to do so before voting on this project.

The only alternative if you’re going that direction is Chapman Avenue which is just as bad. The back-up there is terrible too.

I remember when the area had to evacuate during the fires in 2017 and getting in and out was terrible. Can you even imagine what it would be like with all these extra houses??

Again, I strongly oppose the development called “Trails at Santiago Creek”

Thanks,
Mary E. Carlson, CPA, PMP
3439 E Salisbury Cir, Unit C
Orange, CA 92869
Mary E. Carlson (CARLSON)

Response to CARLSON-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to emergency evacuation are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Furthermore, as discussed in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-27, Mitigation Measure HYD-5 requires the Applicant to retain a qualified consultant to prepare and implement an Emergency Evacuation Plan. The plan shall identify the various types of emergency that could affect the proposed project (e.g., dam failure, earthquake, flooding, etc.) and identify procedures for the safe and orderly evacuation of the project. The plan shall require that streets be identified with clear and visible signage and, if necessary, wayfinding signage be provided to identify exit points.
Hello there,
I just would like to make it known that I fully OPPOSE the development called "Trails at Santiago Creek" project. My husband and I moved here to get away from traffic, and congestion of the crowded city and now it seems the same thing is happening in OPA. Please don’t let that happen, our town is so wonderful and amazing and the openness is so beautiful. Don’t build til we all cant breath anymore.

Thank you for listening

Holly Caswell
holly@sparcousa.com
Tel: 949-797-1750 Ext 250
Holly Caswell (CASWELL)

Response to CASWELL-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.
December 29, 2018

Mr. Robert Garcia
Senior Planner
City of Orange
Community Development Department, Planning Division
300 E Chapman Avenue
Orange, Ca 92866

Sent via email: rgarcia@cityoforange.org

Subject: The Trails at Santiago Creek RDEIR Comments

Dear Mr. Garcia:

The proposed RDEIR for the Trails at Santiago Creek Specific Plan is a much improved document over the DEIR that was issued earlier this year.

One significant issue remains, it is not consistent with the Orange Park Acres Specific Plan and East Orange Community Plan which designate this site as open space. While the document says housing would be limited to 128 homes (one less than in the previous DEIR), the proposed R-1-8 rezoning would allow up to approximately 240 homes. What assurances are there that more homes would not be built on the site if the R-1-8 zone change is approved? At minimum, any analysis of environmental impacts must address the maximum allowed density, not an arbitrary number as proposed.

On page 2-39 of the RDEIR and Appendix Q page 4-8 the documents state: “the project includes three different single-family detached lot programs ranging in size from 8,000-square-feet–9,000-square feet; 9,200-square-feet–10,000-square feet; and 10,000 square-feet and greater. The overall average lot size for PA-C is approximately 10,300-square-feet.” With the majority of lots less than 10,000 square feet, how does the applicant come up with “average lot sizes of 10,300 square feet”? The math does not support this claim, these numbers need to be revised as it is misleading.

Section 2.5.1 discusses certain general plan amendments but is silent on amending the OPA Specific Plan that requires R-1-40 zoning. The OPA Specific Plan requirements must be maintained, either with individual 1 acre residential lots, or the equivalent using clustered housing. Designating the East Orange Specific Plan as R-1-8 is acceptable. However, to maintain
the rural nature of the area, the RDEIR mentions using street lighting, curbs and sidewalks. These elements are not consistent with the rural character of the OPA Specific Plan.

The significant impacts of importing over 877,000 cubic yards of soil, and exporting another 500,000 cubic yards are not fully evaluated. Section 3.3 page 34 states that this would generate 275,000 haul trips over the assumed 18 month grading period. The RDEIR assumes trucks with a 10 cubic yard capacity, therefore the math would indicate that approximately 137,700 truck trips are required, even allowing for material expansion when digging and loading, the math does not add up.

However, using the RDEIR number of haul trips, and assuming trucks would haul 8 hours per day, 5 days per week including holidays this equates to the 391 working days as shown in Table 3.3-6. This would generate 2,110 trips/8 hour day, or 4.4 trucks every minute entering and exiting the work site. This truck volume would result in dozens of trucks backed up during morning and afternoon rush hour traffic as they enter or leave the project site. Also as noted, the 391 working days does not allow for holidays. I do not think construction activities would be allowed to generate over 2,100 truck trips on New Year’s, July 4th, Labor Day, Christmas, etc.

Further, during excessively high Santa Ana wind conditions, no grading or hauling would likely occur. During heavy rain events, no grading or hauling would likely occur as the RDEIR makes no mention of providing truck undercarriage wash stations to clean vehicles before entering Santiago Canyon Road. Therefore the 18 month grading schedule is unrealistic and needs to be revised. Also, the narrative at the bottom of page 3.3-34 states construction would begin January 2019. Table 3.3-6 assumes grading begins January 1, 2020. Which date is correct?

Table 3.3-7 does not list truck haul trips, therefore it is not clear if the table accounts for the 2,100-plus trucks per day to haul the earthwork, though subsequent text on pages 3.3-37 and 38 allude to the impact of truck traffic. If truck haul traffic is included in the analysis, it should be listed in the appropriate tables for clarity. The table does not list truck haul trips to bring asphalt and building materials to the site, which would equate to an additional several thousand trips over the project construction life, nor does it account for construction traffic associated with creek restoration work. A full and realistic evaluation of truck construction traffic impacts need to be developed.

Appendix I is a geotechnical report dated 2011 that states 1,100,000 cubic yards of material will be imported to the site per page 3. There is no apparent analysis and data to now support the 877,000 vs 1,100,000 cubic yard number that was based on the Rio Santiago Specific Plan. This import quantity needs to be calculated and clarified.
Per page 3.4-15, based on Arroyo Toad surveys conducted 8 and 10 years ago, the RDEIR states this species is not expected to occur. An additional, current survey is warranted as too much time has passed to conclude Arroyo Toads are not present. There is no specific plan to remediate the open space along Santiago Creek. There are several endangered species as well as riparian habitat that may be impacted by any development work in the area.

The RDEIR describes several million dollars to be provided for recreational enhancements and this would be a welcome benefit to the area. The RDEIR states that “approximately up to a maximum of $4,100,000 will be provided for landscape and other improvements” along Santiago Creek. However, there is no mention of who will maintain the greenway once improvements are made? The RDEIR also states that additional funding will be available for “local area-wide equestrian trail purposes”, and for “equestrian and recreational purposes in the East Orange Area”. More specificity should be provided as to how and where these funds would be used, what ongoing maintenance would be required, as well as who would be responsible for maintenance.

A significant community improvement that should be considered is a stable and turnout area in the project site, perhaps located in the grassland open space that would allow residents to board horses. This would encourage and promote the equestrian lifestyle that makes East Orange so attractive.

While the RDEIR is significantly improved over the DEIR and provides more clarity on proposed development, there are still areas of inconsistency and lack of specificity that need to be addressed to thoroughly evaluate a proposed project. Most importantly, the proposed density is not consistent with the OPA specific plan and 1 DU/ac density within the OPA Specific Plan area must be adhered to using either individual lots or clustered housing.

Sincerely,

[Signature]

James A. Cathcart
James A. Cathcart (CATHCART)

Response to CATHCART-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to CATHCART-2
The commenter asks how an average lot size of 10,300 square feet, as noted in RDEIR Section 2, Project Description, page 2-39, is possible when the proposed homes range in size from 8,000—9,000 square feet; 9,200—10,000 square feet, and 10,000 square feet and greater.

The project proposes development of 128 dwelling units on approximately 40.7 acres, including 82 lots of approximately 8,000 square feet, 17 lots of approximately 9,200 square feet, and 29 lots of approximately 10,000 square feet. The average lot size of 10,300 square feet, which is cited on page 2-39 of the RDEIR, was determined by taking the total square footage of the residential development area (40.7 acres) and subtracting the square footage of street right-of-ways, pocket parks, and other non-residential areas, and then dividing the square footage by 128 units. This calculation method provides a conservative estimate of impacts because it overestimates the average lot size. As noted in the RDEIR, considering only the residential portion of the project site, the density of the project would be 3.1 dwelling units per acre (128 homes on 40.7 acres). A density of 3.1 dwelling units per acre is on the low end of the General Plan’s allowable density for the “low-density residential” designation.

Response to CATHCART-3
Please refer to Master Response 1—Plan Consistency.

Response to CATHCART-4
Please refer to Master Response 9—Soil Import/Export Numbers.

Response to CATHCART-5
Please refer to Response to VILLA PARK-6.

Response to CATHCART-6
Please refer to Response to SMW-67.

Response to CATHCART-7
Please refer to Master Response 9—Soil Import/Export Numbers.

Response to CATHCART-8
Please refer to Response to SMW-33.

Response to CATHCART-9
Please refer to Master Response 6—Stewardship of Open Space.

Response to CATHCART-10
Comment noted. This comment suggests a stable and turnout area be considered in the project site. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.
Response to CATHCART-11
Comment noted. The comment consists of conclusory remarks. Please refer to Master Response 1—Plan Consistency.
Hello Robert, I am writing you to inform you that I oppose the development called “Trails at Santiago Creek” proposed by Milan REI X. This development will cause further traffic problems that are already a total nightmare any weekday on East Santiago Canyon Road. Furthermore, the development is not consistent with the rural community I live in.

Sincerely,

Scott Chaplin
Branch Manager/Sr. Loan Officer
Phone: (714) 914-3801
Fax: (877) 367-3701

NMLS#488353 | Company NMLS # 3274
Equal Housing Lender
**Scott Chaplin (CHAPLIN)**

*Response to CHAPLIN-1*

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to plan consistency, please refer to Master Response 1—Plan Consistency.
Dear Robert Garcia

When I moved to Orange Park Acres in 1972, there was a plan in progress that included input from the City of Orange, the County of Orange, and a group of Orange Park Acres residents. This became the OPA Specific Plan. Its acceptance by all three entities was in foresight of the current situation. Why does the City no longer uphold its agreement to this plan? The RDEIR of the current proposal for the Trails at Santiago Creek fails to adequately and accurately address many aspects of the environmental impacts the project would create. Because of these significant environmental impacts, there should be a more accurate and consistent study of the alternatives that could minimize their harmful effects. Do not approve this RDEIR. A list of the specific deficiencies has been produced, dated 12-19-2018. Until these items are completely addressed, the RDEIR fails to comply with the purpose for which it was provided.

Patricia Closson
20462 Amapola Ave.
Orange, CA 92869
**Patricia Closson (CLOSSON)**

*Response to CLOSSON-1*

Comment noted. For impacts regarding plan consistency, please refer to Master Response 1—Plan Consistency.
Robert Garcia

From: Edward Cook <ec92867@gmail.com>
Sent: Sunday, December 30, 2018 8:07 PM
To: Robert Garcia
Subject: Sully-Miller property

I oppose the proposed development by Milan for a number of reasons. I have lived at the SE corner of Taft and Canon for the past 34 years. I am also a graduate Civil Engineer that received training in land use, flood control and soil mechanics. It startles me that so little attention in the plan has been payed to developing a flood control channel on the property. It is appropriate to incorporate good engineering practices which anticipate the 100 year flood and takes into account that a earthen dam exists above the property in question. I understand that the present owner of the property wants to maximize profit from his investment. However, the safety of the people that may reside on this flood plain and the concern of the present residence surrounding this development that it fits into the existing community should be the primary concern. The city of Orange is suppose to be the adult in this dispute and represent the residence of Orange. The other part that I fail to understand is why the city allows the continued dumping of dirt and concrete at this site. Or for that matter, why they allowed it to start with. It appears to me that this is a ploy by the developer to say in essence "My development will look a lot better the these mountains of dirt and concrete". The owner of the property has played all sorts of games including divide and conquer, intimidation, political contributions and court actions. I guess that is what is to be expected from powerful developers. I take my hat off to the residence of Orange Park Acres and Mabury Ranch for the fight they have put up. It is extremely rare that the existing residence can stop a development that has the backing of local politicians. A possible compromise could take the form of an agreement by the developer to remove to mountains of dirt and concrete, raise the land where the proposed houses would be built to avoid flooding in the future, develop a flood channel, and reduce to number to proposed houses. The additional traffic created by this development is probably a drop in the bucket when compared with the 18,000 vehicles that presently pass my house each day. The city should seriously consider creating additional North-South roads in the area to alleviate this terrible traffic problem. Unfortunately road/freeway planning has been nonexisting for many years. Example: Dead ending the 22 FWY into the 55 FWY.

Edward Cook
5434 E. Taft Ave.
Orange, California 92867
Ph 714-998-1090
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Edward Cook (COOK)

Response to COOK-1
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to COOK-2
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. This comment is related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Response to COOK-3
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. This comment is related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Response to COOK-4
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Victoria Coonradt <vrcoonradt@aol.com>
Sent: Monday, December 31, 2018 5:24 PM
To: Robert Garcia
Subject: I oppose Trails at Santiago Creek project

Mr Garcia:

I am very concerned about the project being proposed for the Sully Miller site for the following reason:

The flawed project description does not permit meaningful public review of the project.

The Alternatives offered rely on inadequate information and don’t represent viable choices.

It fails to properly analyze the land use impacts for the OPA Specific Plan and the City of Orange General Plan. It is inconsistent with both plans.

The OPA Plan was created to protect our equestrian and rural lifestyle. This proposal violates it in every way. Sully Miller has been designated open space for over 45 years.

The impacts to the environment are significant: wildlife and wildlife habitat, wetlands, streambeds and riparian habitats.

Santiago Canyon Road is already overburdened with vehicle traffic. This project only adds more traffic, safety risks and in the event of an evacuation it creates a public hazard.

In general this project is a bad idea for East Orange. The RDEIR does not address the significant problems that the proposed project brings to our community.

This project simply must not be approved.

Thank you.

Victoria Coonradt
OPA Resident - 27 years

Sent from my iPhone
**Victoria Coonradt (COONRADT)**

*Response to COONRADT-1*
Comment noted. Please refer to Master Response 2—Adequacy of Project Description.

*Response to COONRADT-2*
Comment noted. Please refer to Master Response 3—Analysis of Alternatives.

*Response to COONRADT-3*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to COONRADT-4*
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of this comment is related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

*Response to COONRADT-5*
The commenter states an opinion that impacts to wildlife, wetlands, streambeds, and riparian habitats are significant without providing any supporting facts. Impacts related to wildlife and wildlife habitat, wetlands, streambeds and riparian habitats are discussed in RDEIR Section 3.4, Biological Resources. As discussed in RDEIR Section 3.4, all impacts would be reduced to a less than significant level with mitigation incorporated. Without additional details or facts to support the commenter’s opinion, a more detailed response is not possible or warranted under the CEQA Guidelines.

*Response to COONRADT-6*
The commenter states an opinion that East Santiago Canyon Road is overburdened with traffic and the project would add more traffic, potentially causing safety risks and hazards. Comment noted. Impacts related to traffic are discussed in RDEIR Section 3.16, Transportation and Traffic. As discussed in Section 3.16, Impact TRANS-2, impacts would remain significant and unavoidable after implementation of mitigation and would require a statement of overriding considerations to be adopted by the City prior to approval of the project. Potential hazards are discussed in Impact TRANS-5. As discussed, the project’s impacts related to safety hazards would be less than significant with implementation of Mitigation Measure TRANS-5, which would ensure adequate ingress and egress to the site.

*Response to COONRADT-7*
The commenter states an opinion that the project is a bad idea and that the EIR does not address problems the project would bring to the community. The commenter does not provide any supporting facts to support the comment, nor does the commenter note any specific environmental concerns or questions. Therefore, a more detailed response is not possible or warranted under CEQA Guidelines.
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Hello Mr. Garcia,

As you know the reason for drafting an Environmental Impact Report is for an overarch purpose. Preparing an Environmental impact Report then, is to provide the general public and the decision-makers with detailed and scrupulous information about a project's environmental upshots and ways to minimize the project's significant negative environmental ambience and/or effects and, to find mitigated alternatives to the project environmental impacts; If mitigated solutions are possible.

Furthermore, when draft EIR is prepared by the environmental consultant who is also the sales representative, the reader/reviewer will find that the the environmental impact report is biased; i.e., the environmental impact report is always in favor of a developer and/or the developer's sales representative; which then the biases and missed informed subject matters and omitted comments must be addressed; to that end.

The following written questions, comments, and/or statements are in reference to the aforementioned subject: DRAFT Environmental Impact Report dated February 23, 2018 (hereafter EIR) that the Milan Environmental consultant must address and clarify and or restructure sentences for complete disclosure and completeness, as well as, thoroughness.

In reviewing the EIR It is quite obvious that it Is lacking in thoroughness and completeness and therefore, it should be dismissed and returned to the developer’s environmental consultant/sales representative agency to incorporate into the draft EIR environmental impacting issues that have been omitted and/or missed informed in the EIR; (that has been submitted to the City of Orange) to that end.

The Santiago dam that is supposedly 5 miles upstream from the project site is superficially mentioned and the Santiago Dam is not cited or discussed the Relationship between the project site and the existing dam. Also, all the diagrams the Santiago Dam is completely omitted.

In the EIR, page: 3–9-12, only a small and ambiguous paragraph with incomplete and omitted information has been been dedicate it to the Santiago dam in relationship to the Project site in question.

“Santiago dam is located at 5.0 miles upstream of the project site and, along with the Irvine lake, is jointly owned and operated by the Serrano Water District and Irvine Ranch Water District. The dam was completed in 1931 and impounds Irvine Lake. Santiago dam is an earth/rock-fill structure that is 136 Feet tall and 1,425 feet long that dam is designed to contain up to 50 year water flood and withstand a 500 year flood of over 30,000 ft.³ per second.”
This statement is lacking completeness and thoroughness. It is also ambiguous; as well as, it has to address
omitted information. Please address the following requested information:

1) What is the actual miles distance between the Santiago Dam and project site? I recall meeting with the
engineering department staff. I was given a distance of 4.5 miles (between the dam and the project site). I as well
will reconfirm the miles distance... through several authorities.

2) Dam... “1,425 long”... This statement is misleading. The water that follow from the Santa Ana
Mountains/Cleveland national Forest and gets blocked at the dam is called: “long.” Hence, “long” means how
far back the water comes from: in this case, 34 miles back—that is long.

Conversely, the water that is blocked at the dam from one side of the Santiago Creek wall to the other side is
called: “length”; which in layman’s terms, means the dam and the Santiago Creek is 1,425 linear feet
wide. Therefore the dam and the creek are over I have a quarter of a mile wide. A quarter of a mile is
1320 linear feet. (Now the only reason why the Santiago creek looks very narrow it’s because the
water for the most part has not traveled freely through the project site almost one hundred years
(actual years: 89 years). Hence, the growing vegetation and the droughts over the years has shrunk
the walls of the Santiago creek make it appear that it’s a small creek. It isn’t by any means, some
creeks are bigger than rivers. Only significant difference between a creek and a river, is that a creek
travels into a river and the river travels directly into the ocean.

3) The EIR states that the “dam is designed to contain up to 50 year water flood and withstand a 500 year flood
of over 30,000 ft.³ per second.”
The actual Spellway capacity is: 31,700 cu ft³ per second and how many spillway capacities?
Please address and provide the following:

a) Cite when was the last major rain and flooding (50 years and 500 years).
b) Convert 31,700 ft.³ per second to US gallons per second. And cite if it is just one spillway capacity or several
   and their volume spill. (As well as convert your 30,000 ft per second spillway into US gallons.)

These large measurements, therefore, will have a direct significant environmental impact to the
environment, structures, and you humans lives.

These misleading statements must be corrected to accurately address the environmental Impacts
that will have on human lives and and in the project site.

Additionally, to have a complete comprehensive understanding of the environmental impacts and the
potential loss of lives if this project was to be constructed, the following dam omitted information must
be addressed and cited dam dimensions and capacity:

a) (Height of dam provided: 136 feet tall.)
b) The impounds and volume of impounds
c) Length
d) Width crest (crest is from the surface of the water to the overflow).
e) Width base
f) dam volume:
g) Spillway type
h) Spillway capacity
i) Total water acreage capacity
j) Cite and show the dam terrain grade/ degree in relationship to the project site; Also provide a diagram to the citation.

in addition, in a major catastrophic dam failure, what would be the (please address the following):
  a) Height of water wave or wall of water
  b) Volume of water
  c) Width of traveling body of water
  d) Speed; i.e., water travel “miles per hour.”
  e) Water travel time to project site
  f) Potential number of lives lost
  g) Potential financial private and public property lost
  h) Potential financial cost to city
  i) Public safety catastrophe plan

4) Faults: it states in the EIR that there are no active faults known to pass through the project site (3-6-2). Also it further states that there is no ...fault zones in the Immediate project vicinity.

The Santiago dam is constructed over in existing known fault. There are other known faults adjacent to the the project site; which places the project site in question. Not one might argue and say that the fault(s) are stable and therefore do not present a potential hazard(s). My answer to such a statement would be: Please keep in mind that the San Andreas fault is stable as we speak. The big question is then: When will it become unstable? As we all know body of water is extremely heavy. The fall directly under the Santiago Dam has been supporting such a heavy weight for the last 89 years. Like any fracture, it can only take so much before the fracture ruptures; i.e., collapses completely causing a catastrophe.
Please cite and address the following:

  a) Identify and name the fault directly under the dam
  b) Cite and address the fault
  c) provide the Dimensions of the fault; i.e., length width, and depth.

Also EIR fails to address the: California Statutes and Regulations for the Divisions of Mine Reclamation. On page 86 it basically states: that any faults that are near a creek or proposed project site cannot be constructed.
Please address the following:

  a) Has Malin’s environment consultant and it’s environmental agency contacted the California Statutes and Regulations for the Divisions of Mine Reclamation for clarification and directions...
  b) State if the environmental consultant and its environmental agency have read and reviewed the California Statutes and Regulations for the Divisions of Mine Reclamation?
  c) if so, state why the proposed project site exempt?
  d) It is the lead city responsibility to contact all the related state agencies when dealing with sensitive environments, such as: creeks and mines, etc. Did the city contact the California Statutes and Regulations for the Divisions of Mine Reclamation?

5) Areas of Controversy: On page ES-7, states that lead city contacted to the “State Clearinghouse and other responsible agencies and other interested parties.” Its the City’s responsibility, (not the State’s) to contact the state agencies that play a functional role to this proposed project. Please address the following:
a) List all the: other “responsible agencies” that the City contacted and state what transpired.
b) List all the: “Other interested parties” that the City contacted and cite what transpired.

6) All mining operations cease since 1995:
The developer’s environmental consultant/sales representative state on page 2-19:

What constitutes my name is: the extraction of valuable minerals or other geological materials from the earth, usually from an orebody, lode, vein, seam, reef or placer deposit. Mining is required to obtain any material that cannot be grown through agricultural processes, or created artificially in a laboratory or factory.

Note: Grading and or moving dirt is not mining.

“The project site has been used for resource extraction activities for close to 100 years. Mining activities occurred on site from 1919 until 1995 and consisted of surface mining of sand and aggregates.”
Please address the following:

a) Why has the owner(s) of the Sully-Miller site have not been required to returning the Santiago Creek to its natural state and habitat since ceased of mining operation, which was in 1995; for approximately the last 23 years?

Furthermore, the closing of the mining site requires according to the Santa Ana River/ Santiago Creek Greenbelt Implementation Plan and the Santiago Creek Vision Plan which is in alliance with the National Park Service Rivers, Trails & Conservation Assistance Programs with support from the Wildlands Conservancy.

And specifically stated that once the Miami has been terminated the Santiago Creek Must be returned to its natural state and habitat in accordance to the aforementioned and cited environmental plans. According to the cited environmental specific plans, there is no exception from going directly into land development without prior returning the aforesaid site to its natural state; no exceptions.
Please address the following:

a) Why has the owner(s) of the Sully-Miller it not been required to do so?
b) I have all the state agencies and neighboring cities who are stated and listed in both of the cited plans been notified of the proposed development?

Thank you what is the Garcia for your attention to the concerns that the community has concerning this Proposed development.

I will patiently await for your responses and answers to the aforesaid questions and concerns in reference to this subject project.

Regards,

Daniel Correa
1. Nowhere in the diagrams or in the EIR does your lane damn is cited in relationship to the project site - sub mit

Sent from my iPhone
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Daniel Correa (CORREA)

Response to CORREA-1
Comment noted. The comment consists of introductory remarks that do not raise any questions about the environmental analysis.

Response to CORREA-2
Please refer to Master Response 4—Dam Safety and Risk of Failure.

Response to CORREA-3
As discussed in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-10, the Santiago Dam is located 5 miles upstream of the project site.

Response to CORREA-4
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to CORREA-5
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to CORREA-6
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to CORREA-7
No indication of this information would alter the findings of the analysis. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to CORREA-8
No indication of this information would alter the findings of the analysis. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to CORREA-9
Comment noted. Seismic Hazards are discussed in RDEIR Section 3.6, Geology and Soils.

Response to CORREA-10
Please see Master Response 7—Applicability of SMARA.

Response to CORREA-11
Comment noted. Please see Section 3.1, List of Authors, of this Final EIR for a list of agencies and interested parties who provided comments on the RDEIR.

Response to CORREA-12
Please see Master Response 7—Applicability of SMARA.
Response to CORREA-13
Please refer to Response to SMW-36. Furthermore, RDEIR Section 2, Project Description, subsection 2.5.2, Responsible and Trustee Agencies, page 2-65, includes a list of Responsible and Trustee Agencies, which have been notified of the project.

Response to CORREA-14
This comment cannot be understood. No further response necessary.
December 19, 2018

Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Ave
Orange, CA 92866

Dear Mr. Garcia,

This letter is to voice opposition to a zone change for OPA, and the proposed development, “Trails at Santiago Creek”.

The new traffic situation surrounding our community is already a serious problem which would be made worse by this proposed development. The traffic should not be looked at as a mere nuisance, but a serious threat to life in the event of a fire, as has been proven in the very recent CA fires. OPA has unique evacuation concerns due to the responsibility to its animals. There is much more to consider than getting a car from point A to point B when looking at “traffic” in this community. Another serious natural disaster to consider in creating this new neighborhood is flooding. The development of these homes could complicate or even create a serious flooding condition. How can the city even entertain building a housing development in a natural sand and gravel pit that has been supplied these natural resources by Mother Nature herself? Isn’t there a famous quote similar to “Don’t fool around with Mother Nature?” I don’t believe any amount of money and deal making can win over the power of Mother Nature. Even the Corps of Engineers couldn’t save the lives and homes in Katrina. It’s possible, I suppose, you could win some engineering award with an undertaking of a project such as this, with the natural run off of earth, and complications from the landfill and methane gas, but who is going to pay for this MAJOR MARVEL and be willing to take the responsibility and stand behind it? Milan, the newly elected City Council, appointed Planning Commission? Hopefully never the tax payers! Money and power should not prevail over common sense. This developer is shrouded in negativity, there is nothing genuine or progressive about what they are offering us. Only a way for them to save face from an error in judgement and a bad business decision in underestimating a little place like OPA. Please don’t fall prey to it and agree to a development up against a literal mountain of problems. Let them take and develop what they have legal rights to, and be done with this, once and for all. Leave the OPA Master Plan stand as was Intended, and fought hard for to preserve. This is not about hindering progress, or preserving the life style of a few elites, it is about preserving a life style that once was. It’s about being protected by those chosen to represent THE PEOPLE against powerful, greedy and personal interest entities. Let’s not make deals with the devil for a legacy of negative consequences from the sins of the father.

Thank you for your time and consideration in ending this dispute once and for all and preserving the unique rural way of life with benefits for all.

Cindy Cousine
7728 Appaloosa Trail
Orange, CA 92869
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Cindy Cousine (COUISINE)

Response to COUISINE-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to COUISINE-2
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to COUSINE-3
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Robert Garcia

From: Patrick <mech3979@aol.com>
Sent: Sunday, December 30, 2018 8:18 PM
To: Robert Garcia
Subject: Against any Project at Sully-Miller

Dear Mr Garcia,

As a resident of Orange I am against any proposal that includes any type of development of the Sully-Miller property that goes against the specific plan adopted by the City of Orange which calls for the land to remain open space. I live north of Santiago Canon Rd on the corner of Canon and Lexington. Traffic is already jammed during rush hour and with additional homes brings additional cars. I have not heard of any plans to remedy the current situation so additional vehicles would worsen the situation.

Sincerely,
Patrick Courchaine

Sent from my iPhone
Patrick Courchaine (COURCHAINE 1)

Response to COURCHAINE 1-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Tanya Courchaine <tCourchaine@fairmontschools.com>
Sent: Sunday, December 30, 2018 4:25 PM
To: Robert Garcia
Subject: Against the project

Hello,

The development of this property will force us to move. The traffic is already horrible on Cannon. Developing the property will only make things worse. Plus the fact that land used to be a dump. Who knows what this means to airborne contamination...

Regards,

Tanya S. Courchaine, CCTO | IT Director
Fairmont Private Schools | 1575 W. Mable Street, Anaheim, CA 92802
p. 714.234.2787 | f. 714.234.2794 | tCourchaine@fairmontschools.com

Ask About THE FAIRMONT COLLEGE PROMISE
www.FairmontCollegePromise.com
**Tanya Courchaine (COURCHAINE 2)**

*Response to COURCHAINE 2-1*

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to hazards and hazardous materials are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials.
Mr. Garcia,
I am a 17 year resident of Orange Park Acres and the city of Orange. I love the area where my family currently lives and do not want it destroyed by the proposed Milan development. This proposal, if approved, would require a zoning change on the property, which is currently zoned Open Space. It would also require a change to the Orange Park Acres Specific Plan, which has been in place for decades and protects the semi-rural community which is Orange Park Acres. A change to the Specific Plan would set a terrible precedent for future development in this wonderful community, potentially destroying its equestrian charm. Such changes are not mandatory to satisfy a developer’s greed.

Additionally, the property is known to contain underground methane gas—which would require most, if not all, of the homes built on the property to have methane meters! Is this where YOU would want YOUR family to live??? This is in addition to the huge increase in vehicle traffic which the proposed development would cause, not to mention the 275 truck trips PER DAY for THREE YEARS, just to remove the unwanted/unneeded rocks and soil from the site!

This is a BAD proposal for this property and SHOULD NOT—no—MUST NOT—be approved by the Orange City Council!

Thank you for your time in reading this letter and for your consideration,

Donna Crandall
623 North Brambles Way
Orange, 92869
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Donna Crandall (CRANDALL)

Response to CRANDALL-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to CRANDALL-2
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

Response to CRANDALL-3
Comment noted. Impact related to truck trips, please see Master Response 9–Soil Import/Export Numbers.
Tom Davidson  
6122 E. Santiago Canyon Road  
Orange, CA  92869  

December 26, 2018  

Robert Garcia  
City of Orange Community Development Dept.  
300 E. Chapman Ave.  
Orange, CA  92866  

Re: Revised Draft Environmental Impact Report for the Trails at Santiago Creek  

Dear Mr. Garcia,  

Thank you for your time working on this project. There are many issues with this RDEIR that remain from the DEIR. 
- Pollution from dust  
- Traffic  
- Import/export of soil  
- Open Space  
- Impact on OPA Specific Plan  
- SMARA  

The pollution from this site has been ongoing for many years. While area residents have to deal with this pollution on a daily basis, the build out of the proposed project would clean up this mess. This has been created by allowing a permitted operation of dumping and recycling that perhaps should never have been allowed to begin with.  

Traffic is something that will not go away whether this project is built or not. The number of car trips per day that this project would create will be more than offset by the addition of the proposed lane that would extend all the way from Santiago Canyon Road, (north on Cannon Street) to Serrano Ave. Cars would no longer need to stop and could continue up to and turn at Serrano. This would be a great improvement and should be completed whether or not this project is built.  

The import/export of soil will generate a large number of truck trips that will have a very significant impact on area residents. Truck travel has been a huge issue for this site long before Milan purchased the site. This truck traffic has created safety problems for generations. So to say this project will create traffic from trucks and add a danger to our roads is simply not true-it already exists! If this project were to be built out, the endless truck trips would end. If this project is rejected these truck trips will continue for years to come.  

Open Space is called for in the Orange Park Acres Specific Plan and the Santiago Greenbelt Plan. Both of these plans are over 40 years old. When this property was available for sale, no government agency came forward to purchase this site. The area that this developer is posing to build on (40 acres) and
donate the balance (70 acres—yes some of this area is the creek) gives over 50% of this site to open space for the people to enjoy—without any assistance from the government.

The OPA Specific Plan allows for “clustered” homes to be built on smaller than 1 acre lots. The Specific Plan, in fact, encourages this practice as long as the surrounding open space would “net out” to 1 acre total. If there are 50 acres of this site in the OPA Specific Plan, then it would allow for 50 homes to be built on 25 acres—preserving the 25 acre balance as open space for the public’s use. This proposed project could be built without harm to the OPA Specific Plan.

SMARA—This site should be governed by SMARA. There should be a reclamation plan for this site. There is not one currently and that leaves this site in grave doubt for the future. The proposed project would clean up the site and that would alleviate the problem of not having a reclamation plan in place.

In summary; if the number of homes that are proposed to be built would be reduced, it would be a much better project for the surrounding neighborhoods and especially the Colony/Jamestown, whose residents are most affected by the dust pollution this site currently generates.

The public benefits that this project offers to the residents of the City of Orange far outweighs the downside of homes being built at this site. 70 acres of open space, trails, and bridge access to the trails crossing Santiago Creek, Ridgeline to the City of Orange with the possibility of golf and tennis returning, the possibility of an area horse arena, clean-up of Santiago Creek, easing of traffic, and maintaining the sanctity of the OPA Specific Plan add up to something that should work for all.

This project has the potential to be a development that sets an example for future projects everywhere.

Thank you for your consideration.

Respectfully submitted,

Tom Davidson
Tom Davidson (DAVIDSON)

Response to DAVIDSON-1
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Grading and Earthwork is discussed in RDEIR Section 2, Project Description, page 2-62. Impacts related to recreation are discussed in RDEIR Section 3.15, Recreation. Impacts related to land use and planning are discussed in RDEIR Section 3.10, Land Use and Planning. Impacts related to mineral resources are discussed in RDEIR Section 3.11, Mineral Resources.

Response to DAVIDSON-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic and RDEIR Appendix P, Traffic Impact Analysis.

Response to DAVIDSON-3
Comment noted. Impacts related to recreation are discussed in RDEIR Section 3.15, Recreation.

Response to DAVIDSON-4
The comment appears to support the project’s proposed clustering. The comment is noted and no further response is required.

Response to DAVIDSON-5
Comment noted. Impacts related to mineral resources are discussed in RDEIR Section 3.11, Mineral Resources. Specifically, SMARA is discussed in detail in Appendix M, City of Orange SMARA Memo. Please refer to Master Response 7—Applicability of SMARA.

Response to DAVIDSON-6
The comment appears to support a reduced density version of the project. The comment is noted and will be provided to the decision-makers for their consideration of the project as a whole.
Revised Draft Environmental Impact Report for the Trails at Santiago Creek

From: Larry Day (larryday@pacbell.net)
To: rgarcia@cityoforange.org
Date: Friday, December 28, 2018, 4:28 PM PST

Mr. Garcia

I am writing in favor of the OPA specific plan and asking you to represent me as a long time Orange Resident. I am Not anti-development by nature, and I believe in a persons Property Rights, however; in this case the Developer needs to be disciplined by the historical plan designed by its Neighbors. They will have to Live with your decisions long after you and the Developer are gone.

The DEIR continues to be weak regarding solution to: dust pollution, traffic concerns, trucking trips, SMARA, open space, etc.

I believe the Project to be viable and inclusive with the OPA Specific Plan (one house per acre) if the Developer would reduce the number of dwellings to be built and the OPA association allow for the Clustering of homes to be built, but not to exceed the one home per acre doctrine.

Send the Developer back to redesign his project with the aid of OPA's representatives, in order to comply with the neighborhoods desires and wish's. We all want to see a desirable Project but; through the eyes of the People who will be looking at it, and Living in it for many years to come.

Yours Truly and Respectfully

William 'Larry' Day
714-652-2483 (mobile)
20211 Amapola Orange, CA 92869
Larry Day (DAY)

Response to DAY-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to DAY-2
Comment noted. Commenter does not elaborate further on how the RDEIR continues to be “weak” in regards to dust pollution, traffic concerns, trucking trips, SMARA, open space, etc.; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.

Response to DAY-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to DAY-4
No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Mr Garcia

The trails at Santiago Creek is deplorable. I oppose it vehemently.

It threatens my safety, and make the existing traffic nightmare intolerable.

I obviously is being done to bail out current investors in violation of the public good.

I implore your support

Gregg DeNicola MD
Gregg DeNicola (DENICOLA)

Response to DENICOLA-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Hello

If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres. Traffic on Santiago Canyon Road (which is already horrendous, especially from 4-6) would be greatly affected. As a horse owner and trailer user, I believe it will also negatively affect the future of the Specific Plan for Orange Park Acres as a equestrian community.

Please feel free to reach out to me if you have any questions.

Diana Des Champs
Manager, Process Controls
Technical Services
DLDescamps@Marathonpetroleum.com

Marathon Petroleum
Carson Plant
2350 E 223rd Street
Carson CA 90810
O: 310 847 5604

Wilmington Plant
201 E PCH
Wilmington, CA 90744
O: 310 522 6054
M: 310 940 4691
Marathonpetroleum.com
**Diana Des Champs (DES CHAMPS 1)**

*Response to DES CHAMPS 1-1*

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Trail user – not trailer user!

From: Des Champs, Diana L
Sent: Wednesday, December 19, 2018 8:21 AM
To: Robert Garcia
Subject: FW: I oppose the development called "The Trails at Santiago Creek"

Hello

If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres. Traffic on Santiago Canyon Road (which is already horrendous, especially from 4-6pm) would be greatly affected. As a horse owner and trail user, I believe it will also negatively affect the future of the Specific Plan for Orange Park Acres as an equestrian community.

Please feel free to reach out to me if you have any questions.

Diana Des Champs
Manager, Process Controls
Technical Services
DLDesChamps@Marathonpetroleum.com

Marathon Petroleum
Carson Plant
2350 E 223rd Street
Carson CA 90810
O: 310 847 5604

Wilmington Plant
2101 E PCH
Wilmington, CA 90744
O: 310 522 6054
M: 310 940 4691
Marathonpetroleum.com
Diana Des Champs (DES CHAMPS 2)

Response to DES CHAMPS 2-1

Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Robert Garcia

From: Linda Dickinson <ldickinson@writeme.com>
Sent: Saturday, December 29, 2018 3:10 PM
To: Robert Garcia
Cc: editor@foothillsentry.com
Subject: Trails at Santiago Creek

Dear Mr. Garcia:

I oppose the development called, "Trails at Santiago Creek." I oppose anything that changes the zoning that could allow for more housing. The traffic in the past 20 years has increased to the extent that it is impossible to make a left hand turn out of our development, Broadmoor Park, during certain times of the day. And the traffic down Santiago Canyon Road up to Imperial Highway in the afternoon is insane! Our roads just can't handle anymore cars - we are so impacted as it is in what was supposed to be a more rural area.

Sincerely,

Linda L. Dickinson
Broadmoor Park Resident
Linda Dickinson (DICKINSON)

Response to DICKINSON-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
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From: Rich Dobson <rdobson@socal.rr.com>  
Sent: Monday, December 31, 2018 12:07 PM  
To: Robert Garcia  
Cc: Bradley, Donald  
Subject: Trails at Santiago Creek - Recirculated Draft Environmental Impact Report  

To: Robert Garcia  
Senior Planner  
City of Orange  

Dear Mr. Garcia,

I am writing to express my opposition to the development called, “Trails at Santiago Creek.” I believe this development, if approved as currently proposed, will be a threat to our community’s safety, open spaces, and zoning, and will definitely worsen already horrible traffic conditions on Santiago Canyon Road and neighboring streets. I believe the “Recirculated Draft Environmental Impact Report” is flawed and fails to adequately address the damaging environment impacts this project would have on Orange Park Acres and surrounding communities. I am a proponent of keeping land use at his site restricted to the current zoning and its current specific plan.

Respectfully submitted,  

Richard L. Dobson  
1510 N. Stallion Street  
Orange, CA 92869
Richard L. Dobson (DOBSON)

Response to DOBSON-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Commenter does not elaborate further on how the RDEIR is flawed; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.
Good afternoon Robert,

I have written you in the past I have lived in the city of Orange for most of my adult life and I have lived in Mabury Ranch for 18 years.

I have many concerns about what the city is trying to do in my area at the Sully Miller site and the recent Environmental Impact Report.

Based on these issues below I am against any rezoning of property at Sully Miller site. The current developer will most likely sell once rezoned and what is proposed is no guarantee from what I have read.

1. TRAFFIC is one of the biggest concerns
   a. There is no evacuation plan in the event of a fire and last time it took 47 minutes to leave my area.
   b. Any plan to add merging lanes will have little impact on the thousands of cars that access the Santiago Canyon/Cannon intersection at peak traffic periods. The Irvine Company’s new development near Santiago Canyon & Jamboree will add an estimated 11,000 new car trips/per day.
   c. This stretch of Santiago Canyon is already one of the most dangerous streets in Orange County and nothing is being done.
   d. Adding more people on these streets makes no sense until the city addresses these issues.

2. ENVIRONMENTAL is the next
   a. We don’t know what contaminants are on the site and will become airborne once construction begins.
   b. What about the wildlife and other biological resources? I see in the creek area we have already taken away to much of their habitat. Has anyone checked to make sure there are not any endangered species?
   c. This is a flood plain does that mean they intend to make modifications to the creek?
   d. Not to mention our drinking water flows down Santiago creek to the reservoir. I question if Milan hasn’t already changed the quality already?
   e. What do they intend on doing about the methane gas from the old dump? Who would want to live by that if they know.
   f. Lastly the city of Orange needs more open space base on

I don’t see how re-zoning for a developer will make Orange a better place to live or benefit anyone in the city except the developer.

I get it a developer bought some property here. It was a gravel yard open space.

If what the developer wanted was to build 40 one acre homes and we had a guarantee that might fit the area but the issues above would still need to be addressed.

The city of Orange owes it to its residents to do the right thing.

I look forward to your reply.

Thank you kindly,

Steve Ducolon
6534 E. Smokey Ave
Orange Ca 92867
**Steve Ducolon (DUCOLON)**

*Response to DUCOLON-1*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

*Response to DUCOLON-2*
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

*Response to DUCOLON-3*
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Furthermore, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

*Response to DUCOLON-4*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Robert García

From: Michelle Duman <michelleduman@gmail.com>
Sent: Monday, December 31, 2018 6:32 PM
To: Robert Garcia
Cc: michelleduman@gmail.com
Subject: Trails at Santiago Creek

Dear Mr. Rick Garcia,
As a resident and Member, Board of Directors, Maybury Ranch Home Owners Association, I would like to express my opposition to the Recirculated Draft Environmental Impact Report (RDEIR) for the proposed Trails at Santiago Creek development.
Based on the facts, there is inherent danger to the residents of Mabury Ranch, Orange Park Acres, and surrounding residences.
1. Irvine Lake- Although referred to as Irvine Lake, it is actually a dam, where several earthquake faults are present. Should the dam collapse as a result of a strong earthquake, the flooding would cover over 300,000 cubic feet of land, with a minimum of one foot of water. This includes the land where the proposed Trails at Santiago Creek development would be constructed.
2. Traffic- The traffic is already excessive with several thousands of vehicles and an overflow onto Santiago Canyon Rd., which additionally creates an extended bottleneck onto the one available lane leading to a right turn onto Serrano Ave. There are drivers who do not want to wait in a single line of, vehicles backed up all the way to The Reserve therefore, causing and/or creating dangerous accident scenarios by speeding to cut in front of stationary or slow moving vehicles waiting to turn off of both major thoroughfares.
3. With an estimated additional 11,000 vehicles per day, it is inevitable for environmental pollutants and contaminants to increase to unacceptable unhealthy levels, and exceed the pollution already caused by Sully Miller. Furthermore, the site was a mining site, and no one know how toxic and contaminated the soil is. Moreover, the methane gas vents can not be eliminated.
4. Fire Trap - Maybury Ranch residents have experienced very dangerous fires with no viable, safe escape route to evacuate safely. Serrano can not accommodate the enormous amount of vehicles coming from Anaheim Hills during evacuations. As a result, Serrano becomes a massive bottleneck of cars leaving Mabury residents no way to exit efficiently and safely onto Serrano and Canon.
5. Local Agencies - It is fair and reasonable to say there is just cause why no agency, city or county, has been willing to assume the high risk of liability to allow the land to be developed in the area proposed or adjacent to.
6. Open Space - No written contractual agreement from Milan exists stating a guarantee of funds for open space, or detailed plans about the open space would, if anything, entail.

Thank you in advance for your time and attention to this matter.
Respectfully,
Michelle Duman
Resident, Mabury Ranch
Director, Board of Directors MRHOA

Sent from my iPhone

Sent from my iPhone
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Michelle Duman (DUMAN)

Response to DUMAN-1
Comment noted. Impacts related to dam failure, please refer to Master Response 4—Dam Safety and Risk of Failure.

Response to DUMAN-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to DUMAN-3
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to DUMAN-4
Comment noted. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

Response to DUMAN-5
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to DUMAN-6
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Dear Mr. Garcia,
this proposed RDEIR has many deficits and unanswered questions in my mind. I have lived in Orange and OPA for over 40 years. I do not read anywhere in this what the toll on the environment will be with all the traffic this will bring and how the mess on Katella will be solved.
I believe that it needs to be very specific in the effects on the entire environment. Until that time, I oppose it.

Many thanks for reading this and have a Happy New Year.
Steve Eimers
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Steve Eimers (EIMERS)

Response to EIMERS-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
December 22, 2018

Richard Garcia, Senior Planner
City of Orange
300 E. Chapman Avenue
Orange, CA 92866

Dear Mr. Garcia,

I am most definitely opposed to the Trails at Santiago Creek project, and any changes to the OPA specific plan.

My husband and I moved into Broadmoor, within OPA, over twenty years ago. I cannot tell you how blessed we feel to live in such a unique place. We enjoy watching the horseback riders on the trails, especially the younger ones. We also enjoy the OPA parade, the small community feel and the wide open spaces our community uniquely possesses.

I'm not sure what happened, but the traffic on both Santiago and Chapman has gotten impossible in the afternoons. I can only imagine how much worse it might become if you let the Sully Miller site be built.

Please leave the OPA specific plan alone. Please do not allow less than one acre properties on the Sully Miller site.

Thank you for your time.

Jane Elam
7746 Broadmoor Trail
Orange, CA 92869
Jane Elam (ELAM)

Response to ELAM-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Master Response 10—General Comments on Project, General Opposition.
Good day Mr. Garcia,

I am deeply opposed to the Trails at Santiago Creek. Defending the character of Old Towne and Eichler is a worthy endeavor, but Orange Park Acres deserves the same defense. Violating multiple general plans is just doing something poorly, which rarely works out well and in my profession frequently killed people. One acre lots should be the bare minimum for any development, and I am struggling to understand why the horse arena would be destroyed within a specified horse community. The traffic for the mitigation, construction and new residents will exacerbate an already untenable situation on Santiago Canyon Road, where multi hour backups are routine morning and evening. Wildfire evacuations are a certainty in this area, and high-density development will hinder orderly evacuations, assuming such a thing even exists (our personal evacuation for the Canyon 2 fire was anything but orderly and traffic was a nightmare).

After 45 years of military service and living literally all over the world we knew what we wanted for our final community. We found it here, in Orange Park Acres, and we will defend our community just as we have defended this country. Please do NOT approve the Trails at Santiago Creek.

Sincerely,

Susan J. Elgin
N Hunters Way
Susan Elgin (ELGIN)

Response to ELGIN-1

Comments noted. Impacts related to the Orange Park Acres Plan, please refer to Master Response 1—Plan Consistency. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to emergency evacuation, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved Plan shall be incorporated into the proposed project. Furthermore, as discussed in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-27, Mitigation Measure HYD-5 requires the Applicant to retain a qualified consultant to prepare and implement an Emergency Evacuation Plan. The Plan shall identify the various types of emergency that could affect the proposed project (e.g., dam failure, earthquake, flooding, etc.) and identify procedures for the safe and orderly evacuation of the project area. The Plan shall require that streets be identified with clear and visible signage and, if necessary, wayfinding signage be provided to identify exit points.
Dear Mr. Garcia,

I STRONGLY APPOSE THE DEVELOPMENT CALLED "TRAILS AT SANTIAGO CREEK". I have been a resident of Orange since November 1998, and within Orange Park Acres since June 2013. I live at 1579 N Kennymead St, Orange, CA 92869.

Our property runs right along Santiago Canyon Road next to what is called "Dead Man's Curve" by local residents and law enforcement. There were some improvements made to that section of the road after Councilman Steve Ambriz so tragically lost his life there, however the road remains dangerous with many injury accidents and fatalities.

So many accidents occur here that it has become "normal" for my 2 daughters, my husband & I to suddenly hear the crashing noises and say to ourselves "Oh, another accident!" while we go outside to make sure that 911 has been called and emergency assistance is en route.

The last thing this stretch of road needs is another 120 or more families traveling upon it at all hours of the day and night. Why at that extremely congested location of Santiago Canyon Road and Cannon? ESPECIALLY when there are soon to be many, many more homes built just up the road east of the Jamboree & Chapman intersection by Irvine Company, without any need for zoning changes.

PLEASE don't make a decision that forces the ACTUAL residents of this area to pay for another investor's greed with our lives and livelihoods.

Your attention is very greatly appreciated!

Sincerely,

Maria A. Fahie, DVM, MS, DACVS
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Maria A. Fahie (FAHIE)

Response to FAHIE-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Hello Mr. Garcia,

I strongly oppose the development called, "Trails at Santiago Creek."

Our area does not need more housing causing more traffic. I live in Orange Park Acres right off Santiago Canyon Road and it's 9pm at night on a Saturday and all I can hear right now through my closed front door while I sit here on my couch in my living trying to watch TV is TONS of cars, trucks, & motorcycles driving down Santiago Canyon Road. The number of cars that currently drive on Santiago Canyon Road is seriously insane.

The “Trails at Santiago Creek” development also doesn't follow the Specific Plan for Orange Park Acres as an Equestrian Community. We live here for the peaceful country lifestyle and desire open space, parks, or etc. to keep it rural which is extremely rare and hard to find in Orange County as it is. This lifestyle keeps getting pushed out of Orange County and it is extremely sad and heartbreaking. The people who desire country living, horses, and farm animals are being pushed out and are running out of similar areas to live in Orange Country.

Worse case, if more homes have to be built on any land around OPA, we desire equestrian properties with homes on large lots similar to most of those already in OPA. OPA is one of the very few areas left in OC that is anything like it. But, according to many, the land where the “Trails at Santiago Creek” would be located is not safe to build homes on and no families at all should live on that land.

Bottom line...please no more cars and traffic driving on Santiago Canyon Rd. It is so bad now as it is, it definitely can't handle any more. Something needs to be done about the current condition...not to add to it and make it worse. So many people drive down this road 24/7 and I'm sure most of them are driving through and don't even live in the area. Santiago Canyon Rd is right out my front door and I can tell you that it is so dangerous, so loud, so stressful, so busy and it NEVER stops...all day and all night long.

Thank you for taking the time to read about my concerns regarding the proposed development “Trails at Santiago Creek” which myself and my family are strongly against.

Thank you, Jessica Farnham.

Sent from my iPhone
Jessica Farnham (FARNHAM)

Response to FARNHAM-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to FARNHAM-2
Comment noted. Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to FARNHAM-3
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Mr. Garcia:

My family and I are 30 year residents of Orange and have lived in our present home on Hidden Oaks Lane for over 22 years. We love our peaceful community away from the hustle and bustle of the rest of Orange County. It was a wonderful place to raise our children.

However, over the last few years, since Serrano opened with a direct path to Anaheim Hills and the tolls roads, we have been inundated with traffic. It can take us 30 minutes to arrive home from Jamboree and Chapman between 4:30 - 6:30 due to the intense traffic in our area. Building more homes in our area would greatly impact our community and I am AGAINST this new development particularly as it relates to the current plan to build at least 128 homes.

I kindly ask that you and the rest of the Planning Department visit our neighborhood on any random early evening and tell me if you would want to add more homes in this area. I think you would find it is unacceptable as I do.

I am seriously considering moving out of my beloved Orange because of this traffic and all the impacts to our way of life. I ask that you deny this project from going forward.

Please let me know that you have received my email.

Annette Feliciani
Bryan Fitzpatrick
7009 E Hidden Oaks Ln, Orange
Annette Feliciani (FELICIANI)

Response to FELICIANI-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
From: Pam Ferguson <BPFerguson@aol.com>
Date: December 31, 2018 at 10:39:31 AM MST
To: rgarcia@cityoforange.com
Subject: Limit expansion of Trails of Santiago Creek to forty-two homes

Dear Mr. Garcia,

We have been residents of Mabury Ranch for forty years. We want the proposed Trails of Santiago Creek to be limited to forty-two homes on one-acre sites, even though this will increase traffic more. We have watched the expansion of homes in our area and read the reports. Each and every report denies there will be an impact on traffic because there will be merging lanes, but that has never been the case. There has been a significant impact on the traffic in our area in the past few years with the addition of existing homes. The merging lane has not decreased the impact. We both work in the Irvine-Tustin area and take the canyon road to work. The traffic is horrific now. In peak traffic times, it takes an additional thirty minutes to get home. A thirteen mile commute can take an hour! It is very taxing now and any additional homes will make this worse.

The commute is now challenging and this traffic will have a ripple effect on the value of our homes. We live in an area impacted by fires frequently and have been evacuated multiple times. Additional traffic will increase the danger for us all during those emergency times.

Please consider the dramatic impact on your existing residents and limit the expansion to forty two homes on one-acre sites.

Sincerely,
Bruce and Pamela Ferguson
6732 E. Waterton Ave.
Orange, CA 92867
Sent from my iPad
Pam and Bruce Ferguson (FERGUSON)

Response to FERGUSON-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
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From: pepprox@aol.com
Sent: Monday, December 31, 2018 4:10 PM
To: Robert Garcia
Subject: santiago Creek Project

We are against this project.

More homes will add a tremendous amount of cars in this area. There is already a horrific traffic problem in this area due to lack of road planning in the past!!

John and Toni Finn
**John and Toni Finn (FINN)**

Response to FINN-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Hollis W. Fitz
7712 E Santiago Canyon Road
Orange CA. 92869
12/26/2018

Robert Garcia, Senior Planner
City of orange
300 East Chapman Avenue
Orange, CA 92866

RE: Proposed Trails at Santiago Creek (Sully-Miller Property)

Dear Sir:

I live on Santiago Canyon Road, and I oppose the proposed, Trails of Santiago Creek Development, (Sully-Miller), because of the following:

1. It will increase traffic, (more noise, more accidents, more pollution).

2. The development will further degrade our rural environment.

3. The development is not in keeping with the zoning, in the Orange Park Acres Specific plan that has been fought for and affirmed over the years, currently zoned for residential one acre lot size and no high density developments.

4. Any change in the Orange Park Acres Specific Plan, sets a bad precedent for any future developments.

Thank you for your consideration in this matter.

Sincerely,

Hollis W. Fitz
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Hollis W. Fitz (FITZ)

Response to FITZ-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to FITZ-2
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to FITZ-3
Comment noted. Please refer to Master Response 1—Plan Consistency.
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Robert Garcia

From: Chris <cflath2000@yahoo.com>
Sent: Monday, December 31, 2018 7:41 AM
To: Robert Garcia
Subject: Rdeir

Hello Mr. Garcia,

My name is Chris Flathers and I am a 38 year resident of orange. What mylan is proposing is not good for the communities of orange park acres, Jamestown, the reserve and Mabury ranch. I have a 4 year old son he is involved with athletic activities. His soccer practice was 4.3 miles from our house at 5:00 pm We would have to leave our house at 4:20 to get to practice on time because the traffic on Santiago canyon road is so terrible. This drive should take 11 minutes. Adding 128 homes is a terrible idea compounding a traffic problem that already exist. Adding a turn lane into the proposed site will not help just go the the 261 at 4:00pm towards corona and watch the people go down the side that heads towards the west 91 and cut people off to get on the east 91. Please don’t let the city i grew up in and love become a place I used to live because I could no long raise my family here because I can’t get my son to his athletics without taking time off work to leave an hour early to drive 4.3 miles.

Thanks
Chris Flathers
Chris Flathers (FLATHERS)

Response to FLATHERS-1

Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Robert Garcia

From: fong david <ffongffish@yahoo.com>
Sent: Tuesday, December 18, 2018 8:15 PM
To: Robert Garcia
Subject: Trails at Santiago Creek

I completely opposed this development as it will ruin Orange Park Acres and the City of Orange with increased traffic and noise. This rustic area does not need this project to go through. Thank you.

David Fong
David Fong (FONG)
Response to FONG-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12.
Robert Garcia

From: jm <jsfraser@socal.rr.com>
Sent: Friday, December 21, 2018 9:42 AM
To: Robert Garcia
Cc: stopsullymiller@gmail.com; editor@foothillsentry.com; tharmonson@scng.com; arobinson@scng.com; kguimar@scng.com; local@ocregister.com; 'PETER WETZEL'; 'Rand Fruechting'; 'Greg Keith'

Subject: Milan REI X - Trails of Santiago Creek

As you are fully aware, there is a movement afoot by the citizens of East Orange to oppose the development by Milan REI X referred to as Trails of Santiago Creek. We are writing to join with our neighbors in voicing our opposition to this project. The additional traffic along westbound Santiago Canyon Road (which becomes Katella), adjacent to the location of this propose project, which is already overburdened on a daily basis, will worsen even further thereby greatly increasing safety concerns as this traffic area has become a major alternative to many commuters in the morning and afternoon, headed both eastbound and westbound. Furthermore, we don’t believe that the land which is the topic of this proposed development is currently zoned for such use nor do we believe that it should ever be. Should zoning amendments be presented by developers, or Sully Miller, we would like to be advised of such in order to verbally voice opposition at any City Council hearings considering same.

Thank you for your attention to this email.

James & Shirley Fraser
7326 E Pinto Way
Orange, CA. 92869
James and Shirley Fraser (FRASER)

Response to FRASER-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to FRASER-2
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
December 29, 2018

Lynn-Marie and Richard Frediani
1478 North Portsmouth Circle
Orange, CA 92869

Mr. Robert Garcia, Senior Planner
City of Orange
Community Development Department, Planning Division
300 East Chapman Avenue
Orange, CA 92866

Dear Mr. Garcia,

My husband and I are writing to you to make sure that it is known that we are in disagreement with the RDEIR for the Trails at Santiago Creek. This planned development and the RDEIR is one sided and does not serve the best interest of the communities that surround it nor the best interest of the City of Orange.

The owner is trying to say anything they can to get the property rezoned and there are plenty of loop holes that do not tie them to their obligations or protect the community.

The Recirculated Draft Environmental Report (RDEIR) for The Trails at Santiago Creek is inadequate. A select few of the reasons we oppose The Trails at Santiago Creek as proposed are:

First and foremost, land use for the site is governed by four separate planning documents. The East Orange General Plan, OPA Specific Plan, Santiago Greenbelt Plan and Santa Ana River/Santiago Greenbelt Implementation Plan designate 90% of the site (96 acres) to be open space. Rezoning to low density residential sets a bad precedent for Orange and OPA.

I have lived in this community for over 50 years. When my parents built their home two miles up the road, they researched what the plans were for this area. They did this with the intention of knowing what their community they were investing in would be like in the future. My husband and I did the same when we bought our home in this community. We knew what was allowed and was not allowed for development and chose to buy our home across Santiago Canyon Road from what is now the proposed Trails at Santiago Creek development. When making improvements to our property we have been required to follow the current zoning that is in place. It is detrimental to our society if we allow people to purchase property and then agree to have them zone it to whatever will be the best bang for their pocketbook and do not consider all of the others it will impact. Milan bought this property knowing the current zoning. It is unfortunate that it does not meet the investors’ financial gain expectations; however, the surrounding
neighborhoods should not be the ones to sacrifice for their gain. We need to follow the current zoning designation and keep 90% of the Sully Miller site to open space.

Currently we cannot leave our street in the afternoon and turn left onto Santiago Canyon Road. The traffic is prohibitive. Nor can we turn east onto Santiago Canyon Road in the morning for the same reasons.

It appears that the RDEIR significantly underestimates the Project’s vehicular trip generation and therefore underestimates the Project’s traffic impacts. The RDEIR implies that there are currently 686 daily trips associated with the current operations on the property. This number is then used as a credit for the projected 1,219 daily trips that would be generated by the 128 homes. In a number of areas in the RDEIR it states that current operations have ceased. This makes the projection of increasing vehicular traffic by 542 daily trips inaccurate. In reality, the daily trips would increase by the projected 1,219 daily trips. This will greatly increase the traffic impact for all of us who need Santiago Canyon road to access our home.

The RDEIR ignores the environmental impact and safety hazards caused by the Project’s construction. It states that they will need to 275,400 truck hauling trips to grade the property. It also brings up the air quality impact. Milan’s response to this on the RDEIR states that the poor air quality and traffic impact are “significant and unavoidable.” The damage that would be inflicted by the construction of this project to the current roads, the air quality and the quality of life to the surrounding areas should be unacceptable to the City of Orange.

Additionally, the Trails at Santiago Creek Specific Plan in Appendix Q 8.4.1 on pages 8-3, states the following, “…Preliminary Greenway, Open Space and Trails Plan shall be offered for conveyance for ownership and maintenance to Orange County, the City of Orange, or a public entity as a publically available trail system.” “…Unless and until the applicant’s offer is accepted, the public trails shall be privately owned and maintained by the Master Homeowner’s Association…”

This plan does not guarantee all of the items they are proposing would happen. I would suggest that the City of Orange research the development of Wieder Park near Bolsa Chica. The developer followed the zoning agreement and offered a section of land to the county entity. The city and the developer came up with this agreement prior to having a discussion with the County entity. The designated area in Bolsa Chica needs a significant amount of cleanup and the County is not in the position to handle nor do they want the liability. The developer met their obligation by offering the property to the county and the land is still in the developers’ hands and not used for public use. Is this what we are in store for with Santiago Creek and the Trails at Santiago Creek Development?

I have attended meetings with the county. They have stated that they have not been contacted by Milan Capital regarding the proposed Santiago Creek open space. Milan has not done their due diligence to see if the County is willing or able to manage this space. It should be required for Milan to meet county representatives to work out a plan that would meet county requirements before any rezoning is approved, and to obtain accurate figures for cost of creek restoration, etc.
There needs to be a predevelopment agreement with a detailed conception or plan of what would be done by the developer to restore and maintain the creek, trails, and other open space areas, along with plans for buffers, runoff, etc. In addition, a long-term endowment must be in place to pay for maintenance. The city should not leave the question of dedication open. A long-term management and endowment plan should be in place as a condition for approval. A Homeowner’s Association is not equipped to handle the complicated task of creek restoration and maintenance. A Homeowner’s Association may also restrict public access, as The Reserve has done and Mabury Ranch is proposing.

In the RDEIR, on page 127 Appendix Q 6.4.6.1, it describes how there would be four access points for public trails. It states, "Representatives from Mabury Ranch have indicated that they want limited access to the public in Planning Area A and to Greenbelt and Trail Areas." In all parties’ best interest, public access should not be denied to any person. It should be ensured from all sides of the proposed project area.

This also brings up a contentious point in the fact that the PDA does not represent discussions with residents of our Jamestown/Colony Neighborhood - directly across the street from the proposed project. However, the Jamestown Neighborhood is mentioned numerous times throughout the RDEIR.

These are just few of our concerns with the RDEIR and the development at Santiago Creek. We believe that if the city were to agree to rezoning without careful consideration of the precedent they would be setting for the future development of Orange and the surrounding areas, and without carefully considering the impact the development would have to the traffic and the current equestrian friendly area, the city would be damaging the characteristics that make this community unique.

Thank you for your time with this matter. Again, we strongly oppose the rezoning and disagree with many aspects of the RDEIR submitted for The Trails at Santiago Creek Development.

Regards,
Rich and Lynn-Marie Frediani
Residents
1478 N. Portsmouth Circle
Orange, CA 92869
Phone: 714-496-4290
Email: LynnmarieFrediani@gmail.com
RichFrediani@yahoo.com
Lynn-Marie and Richard Frediani (FREDIANI)

Response to FREDIANI-1
Comment noted. Commenter provides opening remarks expressing opposition for the project. Please refer to Master Response 1—Plan Consistency. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to FREDIANI-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to FREDIANI-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to FREDIANI-4
Comment noted. Please see Master Response 6—Stewardship of Open Space.

Response to FREDIANI-5
Comment noted. Please see Master Response 6—Stewardship of Open Space.

Response to FREDIANI-6
Comment noted. Impacts related to access, circulation, and transportation are discussed in RDEIR Section 3.16, Transportation and Traffic.

Response to FREDIANI-7
Comment noted. Commenter restates opposition to the project. No further response is necessary.
Robert Garcia,

This memo is to let you know Andy and Maryann Gaither oppose the development called “Trails at Santiago Creek.” Traffic on Santiago is already at a stand still every week day beginning around 4pm. Adding more homes will only downgrade the area. There is a very good reason this area is NOT zoned for development.

Andy and Maryann Gaither
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Andy and Maryann Gaither (GAITHER)

Response to GAITHER-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Dear Mr. Garcia,
We are writing to let you know that as citizens of the city of Orange, we oppose the planned development called Trails at Santiago Creek. As a dump site, how can any city official allow any new homes to be built on a site that may be toxic (methane gas, etc.) to the families that unknowingly buy beautiful new homes there? Milan should be held accountable but once the home are built, the City will become liable as well. As taxpayers, we don't believe we should have to pay for poor decisions by the City of Orange officials.
Approval of this project by any city official violates the California planning and zoning laws.

Additionally, the traffic in that area today is horrid, without any new housing. Who will pay the costs for that increased traffic control? Milan or Orange taxpayers?

This land should be dedicated as a park space, as Orange County is already deficient in improved recreational open space per standards of national Recreation and Parks Association and is barely half the requirements of the State of California (3 acres per 1000 residents).

Please do not be responsible for approving a project that has the potential to do great harm to unknowing families and stand up against strong financially motivated developers and do the right thing for our City of Orange and deny this project for new homes and make it open space instead.

Respectfully,
Alex and Carrie Garufis
7109 E. La Cumbre Drive
Orange, CA 92869
714-771-4888
**Alex and Carrie Garufis (GARUFIS)**

*Response to GARUFIS-1*
Please refer to Master Response 1—Plan Consistency. Furthermore, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

*Response to GARUFIS-2*
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

*Response to GARUFIS-3*
Comment noted. Impacts related to open space are discussed in RDEIR Section 3.15, Recreation.

*Response to GARUFIS-4*
Comment noted. The comment consists of concluding remarks that do not raise any questions about the environmental analysis.
Sent from my iPad

Dear Mr. Garcia,

I live right near the intersection of Cannon St and Santiago Canyon Road and have to deal every day with the traffic and the noise created by all of the traffic at this intersection. It is astounding to me that the City of Orange is even considering allowing a new housing development to be built at this corner, the Sully-Miller property. I have only owned my home for five years but have seen a dramatic increase in traffic and noise in just the past few years, along with the increase in noise from police sirens and fire engines. I guess more traffic equals more speeding vehicles, which in turn results in more accidents!

Please consider the impact that approval of the latest housing proposal would have on home owners and travelers in the area.

Thank you for your time,
Margaret Garza
Playano Ave
Orange, CA
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Maggie Garza (GARZA 1)

Response to GARZA 1-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garza

From: Robert Garza <robert.garza85@yahoo.com>
Sent: Monday, December 31, 2018 3:24 PM
To: Robert Garcia
Subject: Proposed Trails of Santiago Creek Development

Opposed the planned housing proposal on Santiago Canyon and Cannon in Orange. The current traffic situation is not tolerable and the increase traffic will make it impossible and dangerous in any emergency. Currently the noise from traffic from those streets make it difficult to have any pleasant outdoor living possible.

Robert Garza
5215 East Playano Avenue
Orange, Ca. 92867
Robert Garza (GARZA 2)

Response to GARZA 2-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Mimi Gaudette <megaudette@socal.rr.com>
Sent: Friday, December 28, 2018 3:09 PM
To: Robert Garcia
Subject: RDEIR COMMENTS

I have perused the document entitled “Inadequacies in the RDEIR’s Project Description”. What strikes me is the general half-hearted work put into the research and publication of findings. When an Environmental Impact Study is made, every detail is supposed to be examined. It appears that the data given here is vague and incomplete. Especially troubling to me is the lack of detail in the soil studies. Mining and other activities have been going on for decades, with no one I have ever spoken with knowing the purpose. Machines of all sorts have been digging and piling and hauling. A true soil study needs to be made, and the City should absolutely create a reclamation plan. And make sure the developers pay for the study and the plan and any mitigation needed. Included in the study should be ground water contamination and mitigation.

Sincerely,
Marian Gaudette
1321 N. Saratoga St.
Orange 92869

Virus-free. www.avast.com
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Marian Gaudette (GAUDETTE)

Response to GAUDETTE-1

Comment noted. Impacts related to Geology and Soils are discussed in RDEIR Section 3.6, Geology. Please refer to Master Response 7—Applicability of SMARA.
December 22, 2018

Robert Garcia  
Senior Planner  
City of Orange  
300 E. Chapman Avenue  
Orange, CA  92866

Dear Mr. Garcia,

We are home owners in Orange Park Acres. We moved here from Irvine in May because the rampant building and increased traffic ruined that city. The tranquility of Orange Park Acres (OPA) is a very lovely change and we do not want to see what happened in Irvine, happen in OPA.

We oppose the development named “Trails at Santiago Creek.” Please stop this development! It is not needed and will adversely affect this area with traffic – which is already bad because of the over use of Jamboree Rd, Chapman Ave, and Santiago Cyn Rd due to jammed freeways.

Thank you for your help in this matter.

Sincerely,

[Signature]

Mike Gerakos  
Kathy Gerakos
Mike and Kathy Gerakos (GERAKOS)

Response to GERAKOS-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.
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Robert Garcia

From: ROBERT GERGER <rgerger@prodigy.net>
Sent: Tuesday, December 18, 2018 5:08 PM
To: Robert Garcia
Subject: I oppose the development called, "Trails at Santiago Creek"

City of Orange Planning,

I live in Serrano Heights, 2486 N Avalon Ave, Orange, CA 92867, and I am extremely opposed to building the Trails at Santiago Creek.

1. The traffic on Santiago Canyon Road and Cannon is already a nightmare in the morning and especially after work, due to all of the cars that use Santiago to Cannon/Serrano to avoid the toll road and the 55 freeway to get to the 91. If you haven't seen the back up on Santiago, it often goes all the way back to Santiago Community College and can take 45+ minutes (ridiculous)! This development will only make this worse.

2. It will affect the future of the Specific Plan for Orange Park Acres as an Equestrian Community.

3. The proposed plan in on a flood plain, next to a landfill that is prone to natural hazards.

4. The plan sets an extremely bad precedent for Orange and OPA.

5. It is a sweetheart deal for Milan (the builder). The City would be bailing out a bad business investment. If the parcel is "up zoned" the property value increases dramatically for Milan investors.

6. The City is not obligated to approve bad projects (this is a BAD project)!

7. The City should not expose taxpayers to unnecessary liabilities.

8. Existing plans (OPA Specific Plan) must be honored including the property right of existing residents.

Thank you,
Rob Gerger
Robert Gerger (GERGER)

Response to GERGER-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to GERGER-2
Comment noted. Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to GERGER-3
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to GERGER-4
Comment noted. Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to GERGER-5
Comment noted. Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to GERGER-6
Comment noted. Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to GERGER-7
Comment noted. Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to GERGER-8
Comment noted. Please refer to Master Response 1—Plan Consistency.
Adrienne J. Gladson, AICP
3403 East Lambeth Court Unit A
Orange, CA 92869
Email: adriennegladson@gmail.com

VIA EMAIL: rgarcia@cityoforange.org
Hard Copy Via First Class Mail

December 30, 2018

Robert Garcia, Senior Planner
City of Orange
Community Development - Planning Division
300 East Chapman Avenue
Orange, CA 92866

RE: Comments - Trails at Santiago Creek RDEIR
(State Clearinghouse No: 2017031020)

I am privileged to be a homeowner in East Orange having lived adjacent to Santiago Creek for over 25 years. I have recently reviewed the proposed Trails at Santiago Creek Specific Plan and Recirculated Draft EIR (RDEIR) to understand the proposal and learn how the project’s environment clearance document transparently informs the community, neighboring jurisdictions, interested parties, responsible and trustee agencies, and the appointed and elected decision-makers of all project impacts of the Trails at Santiago Creek Specific Plan.

Since the project seeks to amend two long-standing and community-respected land use (the East Orange General Plan and the Orange Park Acres Plan) elements of the General Plan, I specifically focused on the project description, land use and planning, and the public and recreation sections of the RDEIR. With this background, I am pleased to provide my comments on the RDEIR regarding the proposed Trails at Santiago Creek Specific Plan.

1) The RDEIR fails to identify and analyze the “loss of 27.7-acres of open space”.

The RDEIR identifies that the Trails of Santiago Creek Specific Plan would re-work the land use classifications on-site to provide space for the development of 40.7 acres of the 109.2-acre site to a residential use. This shift means that 68.5 acres of the site would be assigned new open space classifications, along with reclassifying 13-acres designated for residential north of the Santiago Creek to open space.

The RDEIR/Specific Plan discloses correctly that 96.2-acres of the site is identified for a Regional Park (typically 200-acres or larger) and Open Space by the EOGP and OPA plan, with 13 acres north of the creek designated as residential. This results in the
project proposing a substantial loss of 27.7 acres (see Open Space Inventory Table below) of open space from what currently exists today in both plans.

**Open Space Inventory Table**

<table>
<thead>
<tr>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential - 13-acres</td>
<td>Residential - 40.7 acres</td>
</tr>
<tr>
<td>Regional Park * and Open Space - 96.2 acres</td>
<td>Open Space - 68.5</td>
</tr>
<tr>
<td>Total 109.2 acres</td>
<td>Total 109.2 acres</td>
</tr>
</tbody>
</table>

96.2 acres - 68.5 acres = 27.7-acre loss

* Typically, 200-acres

The loss of 27.7-acres of open space to the EOGP and OPA plan, is not disclosed or adequately analyzed (Sections 3.14, including 3.14.5, impact PS-4 and Section 3.15, including 3.15.a and b., and Impact REC-1) in the RDEIR text or the Trails of Santiago Creek Specific Plan. The RDEIR finds that it is vertically consistent with the land use and planning goals, but because it does not disclose or adequately analyze this loss makes the claim of consistency unproven.

As identified in the Orange General Plan (Natural Resources -3)

"Open Space areas are important biological, aesthetic, and recreational resources". "They become increasingly valuable as the City develops and the landscape becomes more urbanized". "Open spaces create buffers to development and provide both wildlife habitat and recreational opportunities."

The Natural Resources element of the General Plan identifies how serious the deficient is to our open space inventory in Orange. Our General Plan has disclosed this deficiency, listing several goals and policies to address this matter to ensure this unacceptable impact is remedied in the future. The RDEIR does not adequately disclose this significant open space loss in its text and the project’s land use, public services, and recreation analysis. This flaw requires that the project Specific Plan and RDEIR must be revised to address the loss of open space to achieve a less than significant finding, or the findings of the RDEIR can conclude that this impact is significant and unavoidable. The project description, specific plan, and RDEIR should be revised to address this undisclosed information.
2) **The RDEIR fails to adequately analyze conflicts with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environment effect.**

*Residential Not Suitable*

The project description and the land use and planning discussion (Section 3.10 of the RDEIR) fail to disclose that both the East Orange General Plan (EOGP) and Orange Park Acres (OPA) plans do not permit or anticipate residential uses at any density level on the core area (approximately 96 acres) of subject site generally south of Santiago Creek. One can reason such an exclusion was included in both plans because of the known challenging environmental conditions of this site. If those constraints were not present, one can further assert that both plans would have identified residential as a suitable land use and housing development on the property would have already occurred.

The proposed amendment to both plans does not identify or adequately analyze this matter in the text. CEQA requires this analysis be done. This flaw requires that the project specific plan and RDEIR be modified to reduce the land use impact to less than significant, or the findings of the RDEIR should be changed to conclude that land use and planning impacts of the project (pursuant to CEQA Guidelines' Appendix G - Thresholds of Significance - 3.10.5 b, page 3.10-10 of the RDEIR) are significant and unavoidable. The project description, specific plan, and RDEIR should be revised to address this information.

3) **The Specific Plan and RDEIR must revisit the project mitigation monitoring program and related timing of required mitigation measures and project benefits to ensure they are not deferred. Additionally, both shall identify the mechanism used to verify they will work and be implemented to further clarify environmental impacts for the decision-makers and the community.**

Since the Specific Plan and RDEIR generally relies on other parties or uses the payment of in-lieu fees to mitigate project impacts to a less than significant level, the Specific Plan/RDEIR needs to re-visit this timing to eliminate claims that direct project impacts or cumulative project impacts have not been deferred or not adequately mitigated.

For example, one identified project benefit of the Specific Plan are the physical improvements to Santiago Creek which are tied to Goal 1.0 and Policy 1.3 of the Natural Resources Element of the General Plan. This benefit is commendable as Goal 1.0 and Policy 1.3 were adopted to protect, restore, and provide public access to Santiago Creek. But key to delivering and providing verifiable assurances that the
benefit of Goal 1.0 and Policy 1.3 will be implemented by the Specific Plan starts first with securing an ownership entity or oversight authority for the creek and the adjacent greenway. Additionally, an approved plan for creek restoration, ongoing maintenance, and public accessibility must be designed and analyzed by the proper experts to ensure it adequately works before action to approve the specific plan can occur. If this is not secured it creates a significant environment loose end. If this assurance is not in place how can the environmental assumptions of the RDEIR associated with Goal 1.0 and Policy 1.3 be found mitigated and achieved. The project description, specific plan, and RDEIR should be reexamined to ensure the timing of all of environmental mitigation or design features are not deferred.

I appreciate the opportunity to comment on this RDEIR for the Trails at Santiago Creek. Thank you for your diligence is carrying out the duties and responsibilities of a very complex project.

Thanks,

Adrienne J. Gladson, AICP
Adrienne J. Gladson (GLADSON)

Response to GLADSON-1
This comment incorrectly assumes that 13 acres are currently residential and the remaining 96.2 acres are Open Space. However, this is not accurate. As explained in the RDEIR, 15.4 acres of Low-Density as Residential (confirmed by the City of Orange Community Development Department) are allowed in the north-central portion of the site, north of Santiago Creek and abutting Mabury Ranch Road. Consistent with the General Plan’s density range of 2.1 to 6.0 units per acre, a target of 40 to 55 residential homes on this 15.4-acre residential land use parcel. The existing R-1-8 Zoning for the residential area would yield approximately 40 to 50 single-family dwelling units. Access to this residential parcel would be from Mabury Avenue. A section of approximately 16.5 acres of Open Space (OS) bisects the site in an east-west trend, generally following the Santiago Creek corridor, and avails itself to creekside trails to allow for connectivity to regional trails to the west, and eventually connecting to Santiago Oaks Regional Park to the east. The majority of the site, approximately 77.3 acres, is designated Resource Area (RA) which permits ongoing rock crushing and sand and gravel operations. Rather than remove 27 acres from open space as the commenter suggests, the project instead proposes the transformation of a rock and concrete materials recycling and backfilling operation to an environmentally enhanced, ecologically friendly open space environment embracing a well-planned and attractive single-family detached residential neighborhood. The environmental impacts associated with this conversion are detailed throughout the RDEIR.

Response to GLADSON-2
The proposed project is consistent with the City’s goals regarding open space. Regarding the East Orange General Plan, approximately 37 acres of the project site are located within the boundaries of the East Orange General Plan and are designated “Regional Park.” That represents approximately 2 percent of the East Orange General Plan total area. The proposed project includes 68.5 acres of open park space, split into 40.2 acres of Greenway Open Space/Santiago Creek Riparian Corridor and 28.3 acres of Grasslands Open Space. Therefore, the proposed project would include 68.5 acres of open space/park uses adjacent to, and partially within, the East Orange General Plan; creating more open space in the vicinity than the 37 acres of the project site that are within the East Orange General Plan.

Response to GLADSON-3
Please refer to Master Response 1—Plan Consistency. The comment speculates regarding the intent of the Orange Park Acres and East Orange General Plan. The proposed project’s consistency with both plans is discussed in Section 3.10, Land Use and Planning, of the RDEIR. Table 3.10-3, East Orange General Plan Consistency Analysis, further evaluates project consistency with the applicable concepts of the East Orange General Plan. While the Orange Park Acres Plan does not outline goals and policies similar to contemporary General Plans, or contain the specificity required of a Specific Plan, the Orange Park Acres Plan does outline goals, objectives, and policies. Table 3.10-4, OPA Plan Consistency Analysis, evaluates project consistency with the applicable objectives and policies of the Orange Park Acres Plan. No revisions to the consistency analysis are required based on this comment.
Response to GLADSON-4
The Applicant is creating a funding source to restore and improve the open space and greenway within the project site. On-site trails will be designed per the City of Orange RTMP dated April 27, 1993. The implementation of the Specific Plan and associated project will also fund a maximum of $4,100,000.00 in landscape, trails and other improvements for the Santiago Creek Greenway and Open Space. Furthermore, please refer to Master Response 9—Stewardship of Open Space.
imo:

any and all of the 40.7 acres with proposed housing that fall within the 1973 OPA specific plan, should require 1 acre lot minimum size.

keith gladstien, md, phd
11031 meads ave
orange, ca 92869
Keith Gladstien (GLADSTIEN)

Response to GLADSTIEN-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
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Mr. Garcia,
As the lead agency for this site has the owner of this property provided you with:
Site reclamation plan and adequate financial assurances for the plan?

From what I can gather from the state surface mining act section 3550.4 this site is still listed as a regionally significant resource yet in the proposed project DEIR this does not seem to be addressed.

Dan Graupensperger
yonka@pacbell.net
714 335-9856
Dan Graupensperger (GRAUPENSPERGER 1)

Response to GRAUPENSPERGER 1-1

Comment noted. Please refer to Master Response 7—Applicability of SMARA.
Robert Garcia

From: Dan Graupensperger <yonka@pacbell.net>
Sent: Sunday, December 23, 2018 9:01 PM
To: Robert Garcia
Subject: Trails at Santiago Creek

Mr. Garcia,

I have reviewed the recirculated draft EIR and still have a few concerns about the proposed 128 dwelling unit project. In no particular order they include:

Although the project is located on the edge of OPA it is still part of the OPA specific plan. The fact that this site is on the edge is a non argument for the project and should be discarded from the EIR.

All of the traffic studies relate only to this project as if there will be no other additional traffic generated from other future projects in the surrounding area. While these studies are useful to gain some idea of what impact this one project will have on traffic they fall short as a comprehensive planning tool.

There is a lot of discussion about keeping the Santiago Creek drainage as open space as if this could be made into something other than open space. This drainage cannot ever be built on and will forever be a liability for whoever owns it because of all the state and federal, and local requirements that go along with it.

The owner of this property has already demonstrated an inability to be a good neighbor. The threat of restarting the soil and road base crushing if he is not allowed to build the proposed project is further proof of this. If this plan is allowed to proceed it is possible the current owner will not in fact perform the development. He will be able to sell the site with the new entitlements to a third party who may come to the City Council with a request for more entitlements. If the City Council entertains approving the requested changes it might be prudent to include language that will prevent any future entitlement changes that will allow greater development or increased density.

I have some concerns about allowing a development of this size in what amounts to a flood control channel. The upstream dams and drainage system created to handle a large scale flood were created in response to historical flood events. It is possible that history may repeat itself.

There does not seem to be a specific, comprehensive land remediation plan to address all the soil movement that has happened to property over the years. There have already been developments within the city that have resulted in existing dwellings being torn down so the soil beneath could be remediated properly. Once again we have history to guide us.

Dan Graupensperger
2029 N Shaffer St
Orange.
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Dan Graupensperger (GRAUPENSPERGER 2)

Response to GRAUPENSPERGER 2-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to GRAUPENSPERGER 2-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to GRAUPENSPERGER 2-3
Comment noted. Please see Master Response 6—Stewardship of Open Space.

Response to GRAUPENSPERGER 2-4
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to GRAUPENSPERGER 2-5
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to GRAUPENSPERGER 2-6
Comment noted. Please refer to Master Response 7—Applicability of SMARA.
December 30, 2018

To: Robert Garcia, Senior Planner: rgarcia@cityoforange.org
City of Orange
300 E. Chapman Avenue
Orange, CA 92866

Subj: Opposition to “Trails at Santiago Creek”

We oppose the development of “Trails at Santiago Creek“. The City has a responsibility to the OPA Community NOT to let the proposal that Milan REI X has filed with the City to develop the Sully Miller site go forward. It is not a good fit for the zoning in Orange Park Acres. This company has no affinity for our community.

We have written to the City before that this development area is unsafe and was completely underwater in the late 1960’s as it is the last major drainage basin for the entire Holy Jim Canyon, Modjeska Canyon, Black Star Canyon, Silverado Canyon and the entire Santiago Canyon Creek drainage system. Bobbie has seen the entire Sully Miller Gravel pits completely submerged from bank to bank, the north/south bridge north of Oakridge Private School washed out, and above this area the Irvine reservoir and Villa Park Dam full and overflowing. This proposed development is on a major flood plain! This area was designated as OPEN Space for this reason.

The western end of the Sully Miller area was also the location of the Orange County Dump in the 1950’s and is still gassing off.

As residents of Orange Park Acres the Milan project affects our community negatively adding more people to our rural area, possible illegals and criminal elements, and worsening the already impacted traffic on our roads. The ever encroaching roar of traffic noise will only get worse.

There are no sidewalks on many of our streets. We have to use the narrow roads mingled with the traffic. Too many vehicles already drive too fast for the safety of our horses and children, disobeying our speed limits and warning signs. ALSO too many unfavorable conditions have crept into our community which the City of Orange has granted to outside interests taking AWAY FROM our rural atmosphere. When will this stop?

Sincerely, Longtime Residents (1946) of OPA

Tom and Bobbie (Baldwin) Grayson
6348 East Frank Lane
Orange, CA 92869

cc: Bob & Katrina Kirkeby: StopSullyMiller@gmail.com
Foothills Sentry: editor@foothillssentry.com
**Tom and Bobbie Grayson (GRAYSON)**

*Response to GRAYSON-1*
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

*Response to GRAYSON-2*
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

*Response to GRAYSON-3*
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

*Response to GRAYSON-4*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Dear Mr. Robert Garcia,

Good morning. My name is Anthony Gressak and my family and I recently moved to 7024 E. Hidden Oaks Lane, in Orange, CA. My family and I chose the Hidden Oaks neighborhood and Orange specifically, because it is simply one of the remaining spots in Orange County not plagued by overdevelopment. We specifically backed out a house in the Emerson community in Tustin, CA off Jamboree when we found our Hidden Oaks home because it was exactly what we wanted....a place whereby you weren’t on top of your neighbor.

We are against any proposed development of the Sully-Miller Property, as it would only negatively impact our way of life and the only reason why we chose to come to Hidden Oaks. Additionally, the traffic situation on Serrano/Canon/Santiago is already tough enough in the mornings and early evenings, and I see no way the traffic congestion can be alleviated. Another big item is the environmental impact. My daughter and I spend time every weekend picking up trash on the trail outside our house that goes into Santiago Canyon (and into the park) even cleaning up other peoples dog mess. Having more people in this community will only exacerbate this problem, which I personally think is unfair to do to the environment and respective wildlife.

Should you have any questions, please don’t hesitate to reach out to me at 818-203-0116. Thank you for your time.

Anthony Gressak
Chief Credit Officer
Nano Banc
7700 Irvine Center Dr. #700
Irvine CA, 92618
Office: (949) 538-5210
Fax: (949) 377-3356
Email: agressak@nanobanc.com
Website: nanobanc.com

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This correspondence is not a contract to extend financing nor an offer to enter into a contract for such financing nor a commitment to obligate lender in any way with respect to any financing proposal discussed herein, and you should not rely upon it as such.

Annette Feliciani <afeliciani@socal.rr.com>
Sent: Tuesday, December 11, 2018 8:10:23 AM
Anthony Gressak (GRESSAK)

Response to GRESSAK-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Dear Mr. Garcia,

I would like to express that I am opposed to the The Trails at Santiago Creek proposal and believe that the RDEIR is inadequate.

I live in the Colony on Jamestown and Valley Forge Dr. My backyard faces Santiago Canyon Road. The traffic is horrendous as it is. There are trucks coming and going all day long. Some even park in the center divider waiting for the facility to open their doors, allowing all their pollutants to enter our homes. I have called the police and city many times about this matter. The situation will only get worse.

Furthermore, one of the reasons I moved to this location was because I enjoy the open space and the natural protected environment. I am opposing any rezoning measures put in place especially on a location that houses wildlife and is a flood control plain. The natural habitat and surrounding environment must be safe and protected.

We have made our concerns known over and over. We even voted and expressed our dismay with Sully Miller. It’s time that our voices are finally heard. Also, I recommend that you send out any information regarding this matter using Letterhead from the City of Orange. It seemed alarming and a bit deceitful to receive a request for comments to this major issue on a different source with a deadline given on one of the most travelled and busy days.

Once again, I oppose the Sully Miller/The trails st Santiago Creek proposal and deem the RDEIR inadequate.

Respectfully,
Martha Guerrero-Phlaum
5849 E Valley Forge Dr
Orange, CA 92869
megphaum@gmail.com
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Martha Guerrero-Phlaum (GUERRERO-PHLAUM)

Response to GUERRERO-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to GUERRERO-2
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Please refer to Master Response 5—Wildfire Risk.
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Kim Haman <kim@kimhanmanwriter.com>  
to rgarcia@cityoforange.org, stemper.jack@gmail.com  

Dear Mr. Garcia,

My name is Kim Haman and I live with my fiancé Jack Stemper at 5550 E. Mountain Avenue in Orange, in the Mabury Ranch development. I hope this note finds you well.

I’m writing to register our strong objection to any potential development at the 40.7-acre parcel south of Santiago Creek. As you are aware, Milan Development has threatened to sell the parcel of land to a developer, if it is rezoned from open space/resource to low-density single-family housing. This amounts to extortion. Milan is implying that if we don’t agree to allow them to build 128 homes in that area, then they will sell it to a developer that could possibly build many more. We are not a stupid group of people. We are very aware of what Milan is doing with this thinly veiled threat. It’s disgusting. A company that would do that will, I’m sure, violate any number of agreements with both the community and the city, if they are allowed to build homes on that property.

Milan’s lack of ethics aside, there are very practical reasons that no development at all or very minimal development should be allowed on this site. The list of reasons is extensive. Here are the ones that will have the most dire effect on the community and the environment:

1. **Traffic on Cannon and Santiago.** No traffic studies have been implemented to accurately gauge the damage hundreds more cars a day will have on the community. If you have ever traversed this intersection in the morning and evening rush hour, you know that traffic backs up in all directions for nearly a mile. This is not an exaggeration. This negatively impacts the people who live in the community that have to sit for many long minutes in bumper-to-bumper traffic, with their homes practically within sight. People become more stressed, more anxious, and their moods, when they finally make it through the bottleneck, impact those around them, in turn making those individuals more stressed and anxious. Imagine, just imagine, that traffic increasing by a 1/4 or a third.

2. **Too many students in our schools.** LaVeta School, Cerro Villa Junior High and Villa Park High School will be negatively impacted. These schools have already been sadly neglected by the City and the community for decades. It’s a travesty that it took nearly 40 years for the people who live in Orange and Villa Park to finally vote for a bond measure to help modernize and expand our schools. We finally won that battle—a new housing development will send hundreds more children into these already over-crowded schools. How in the world are we supposed to finance even more buildings, books, classrooms and equipment when we barely have enough in the bank now to improve the schools to minimum modern standards? Building new homes will mean more children, crowded into underfunded classrooms with teachers already stretched beyond what human beings should be expected to endure. Is this really what the City of Orange wants for its children?

3. **Negative environmental impact.** This site has been used for mining, rock crushing, and as a dump in past decades. What sort of chemicals will be stirred up by construction? Also, you hopefully are aware that Santiago Creek has been known to flood—we have heard stories from neighbors who have lived here for years about the creek severely overflowing. Where and how will you divert the water when the rain eventually returns to normal levels?
   1. In addition, the animals, birds and insects that make Santiago Creek their home will be further pushed into residential areas. More cats and dogs will go missing—not to mention the
coyotes and foxes and other animals who will die because of the greed of the Milan company. It is shameful.

2. Milan has not done a single environmental impact study. Right now, they are trying to get us to agree to development before they have done even a bit of due diligence. It is extremely arrogant and irresponsible of Milan’s leaders to shove ahead like they are doing, without even the good-faith gesture of an environmental impact report.

4. Increase potential for loss of life during fires. If you were aware of it, when the fires in October of 2017 forced the evacuation of thousands of people in Mabury Ranch, Anaheim Hills and Santiago Hills, residents were trapped on the road for upwards of two hours. Two hours to get a mile down the road! This is an indictment of the City of Orange for poor planning. That aside, how do you expect an orderly evacuation in the event of another fire when more than a hundred new homes are added into the mix? That is irresponsible. People in this part of Orange could end up like the tragic victims of the Camp Fire up in Paradise—too many people, not enough evacuation routes. If there is even one reason the City of Orange needs to stop Milan’s plans, it is because of the inadequate fire evaluation routes for our community.

5. The Milan company is a poor steward of property it owns. There is a horse trail behind our home which is on property owned by Milan. The company has been negligent in the upkeep of this horse trails, leading to erosion that eventually caused the wooden fence to slide down the hill. This neglect of the property they already own is indicative of their lack of care or consideration for the property already under their control. This is a major issue that needs to be addressed—and just as importantly, shows that they simply don’t care about the community and are just out for profit.

6. This parcel should be a park. The city of Orange has among the lowest number of parks and open space for a city of its size. Our City leaders have lost sight of what it is that brings people to live here. It’s about community, neighbors, friendships and a great lifestyle. Building additional, unneeded housing without building more, larger parks hastens the loss of the city’s unique character. And for what? Milan offers absolutely nothing in return. The disputed parcel should be made into a park for the whole community to enjoy.

7. Unneeded, expensive housing. If Milan is allowed to build homes, I am positive they will not be entry-level homes at the price point that allows young families to establish a foothold in Orange. They will be million-dollar-plus homes. We don’t need any more of those homes. Most of the homes in this area are already more than a million. There is a housing crisis in Orange but this project doesn’t help it at all—in fact, it puts housing even more out of reach for people. It’s disingenuous for Milan to say that this project helps increase the housing stock. It doesn’t—not for the people who really need it.

8. Loss of faith in our leaders. Milan for years has been trying to manipulate the Orange City counsel into letting it run roughshod over our community. I don’t know the history of Milan and the City Council, but I do know that we need strong leaders who resist the siren song of campaign donations and pet-project support. We elect our city leaders to represent our interests—not those of an unethical company that doesn’t care about our community even a tiny bit. If the City Council allows this to move forward, the community will understand that the current City Council members do not have our best interests at heart. The voters will act accordingly. We are an educated, media-savvy bunch and we will support the Council members who do what they were elected to do—be our representatives. Those council members who don’t do the job they were elected to do—well, they won’t have their job on the Council for long.

If you have any questions or need any of my points clarified, please feel free to reach out to me at any time. My number is 714-366-3152. You can also reach Jack Stemper at 714-454-6265.

Thank you for your attention in this matter. It is my deepest hope that our city does what is right for all the people who call this community home by not allowing Milan to move forward in this travesty of a project.

Sincerely,
Kim Haman
Kim Haman (HAMAN)

Response to HAMAN-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to HAMAN-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to HAMAN-3
Comment noted. Impacts related to schools are discussed in RDEIR Section 3.14, Public Services.

Response to HAMAN-4
Comment noted. Impacts related to hazards are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Please refer to Master Response 7—Applicability of SMARA.

Response to HAMAN-5
Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to HAMAN-6
Comment noted. See RDEIR.

Response to HAMAN-7
Comment noted. Please refer to Master Response 5—Wildfire Risk.

Response to HAMAN-8
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to HAMAN-9
Comment noted. Impacts related to open space are discussed in RDEIR Section 3.15, Recreation.

Response to HAMAN-10
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to HAMAN-11
Comment noted. The comment consists of concluding remarks that do not raise any questions about the environmental analysis.
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Robert Garcia

From: Nancy Hamilton <nlhamilton333@gmail.com>
Sent: Sunday, December 30, 2018 3:53 PM
To: Robert Garcia
Subject: AGAINST the Trails at Santiago Creek Development

Hello Mr. Garcia,

I am writing to you as a concerned resident of the City of Orange. My back wall is on Cannon at Taft, in the Colony. The traffic on a daily basis is absolutely horrific. During the evening EVERY night of the week, Cannon is backed up for miles for hours. When I get off of the toll road at Chapman, traffic comes to a halt up by the cemetery on Santiago Canyon Road and inches along down to Cannon where it continues to back up. The other day it took me 8 mins to go less than a half mile on Cannon...from the turn from Santiago Canyon to Cannon to my street Lexington which is .4 miles it took EIGHT minutes. This is not unusual, this is a nightly ordeal and extremely frustrating to have to sit in traffic in our residential neighborhood. Not to mention trying to get out of my street onto Cannon in the evening!! There is a “wait here” painted on the road that NO ONE adheres to and just sits still blocking us from getting out!!! RUDE!!!! And now this ridiculous thought of adding more homes in this area!!! This has to be a joke, correct??

Apparently the City and the people proposing this project were not here In October 2017 when the Canyon fire hit and we had to evacuate. It was absolute gridlock and we, the residents, could not evacuate quickly and safely due to all of the traffic. How can anyone allow more houses to be built when the streets around here cannot accom
Robert Garcia

From: Nancy Hamilton <nlhamilton33@gmail.com>
Sent: Sunday, December 30, 2018 4:03 PM
To: Robert Garcia
Subject: Fwd: AGAINST the Trails at Santiago Creek Development

apologies, I accidentally hit send

Cont...accommodate the current traffic we have. I have heard thoughts of widening Santiago Canyon and restriping Cannon. Restripe Cannon all you want, it wont alleviate the current traffic we have now. Not to mention, there isn’t room to restripe unless you plan on taking the holding lane away from the tax paying residents that live here in the City of Orange. Most of the traffic congesting our area are people travelling back to the Inland Empire in the evening.

Until the current traffic situation can be figured out, there should be NO THOUGHT of building more homes to add to an already horrific traffic problem.

Thank you for your time Mr. Garcia.

Sincerely,

Nancy Hamilton

---------- Forwarded message ----------
From: Nancy Hamilton <nlhamilton33@gmail.com>
Date: Sun, Dec 30, 2018 at 3:52 PM
Subject: AGAINST the Trails at Santiago Creek Development
To: <rgarcia@cityoforange.org>

Hello Mr. Garcia,

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Nancy Hamilton (HAMILTON)

Response to HAMILTON-1
Comment noted. Impacts related to transportation are discussed in RDEIR 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to HAMILTON-2
Comment noted. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.
Good morning Mr. Garcia,

I oppose the development of the Trails at "Santiago Creek". We moved to Orange for the family friendly it is and spend a lot of time at Sully Miller the area around it.

We moved out of Anaheim Hills for the reason of the overbuilding and traffic and we really hope you look at the quality of life and the nature area around before making this drastic decision.

Thanks for listening,

Jaime Hatzfeld
20041 E Clark
Orange 92869

Jaime Hatzfeld
Director of Operations

ESL Power Systems, Inc. | www.eslpwr.com
2800 Paisades Drive | Corona, CA 92880
Tel: (830) 922-4168 | +1(951) 739-7000

RECENT NEWS

Helpful Holiday Party Pointers!
Office parties are a great way to celebrate with your coworkers. Check out these helpful pointers so you too can be prepared for your company event.
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Jaime Hatzfeld (HATZFELD 1)

Response to HATZFELD 1-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Kirat Hatzfeld <Kirat.Hatzfeld@skyworksinc.com>
Sent: Friday, December 28, 2018 7:10 AM
To: Robert Garcia
Cc: stopsullymiller@gmail.com; editor@foothillsentry.com
Subject: Stop Sully Miller Destruction

Dear Mr. Garcia,

We moved to OPA 2 years ago with the promise to provide our horses with the trails and arena that are part of our amazing neighborhood.
Every week, we utilize the arena for ground work and practices to prepare for competitions or simply exercise the horses. The arena is in walking distance to our house.
The removal of the arena will result in a loss of the training facility and would be a major inconvenience.
Please help us to keep Supply Miller at OPA.

Thank you, Kirat Hatzfeld
Kirat Hatzfeld (HATZFELD 2)

Response to HATZFELD 2-1

Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Dear Robert Garcia,

I am a resident of Orange Park Acres and I oppose the development called “Trails at Santiago Creek”. This development requires a zone change that would change my neighborhood for the worse and violates the OPA Specific Plan that has been in effect for quite some time. I feel that the developer needs to propose a plan that fits within current zoning and also adheres to the OPA Specific Plan.

I was raised in this equestrian neighborhood, Orange Park Acres, and it was always my dream to raise a family here. My husband and I were able to pull together enough money to move into our equestrian home and we are praying that we will be able to raise our children in this rural equestrian community. OPA is a hidden gem in Orange County and a major asset to Orange. Developers should not be allowed to buy properties that are not zoned for homes and then change that zoning just to suit their needs. They bought the property knowing full well the zoning in place and they currently have the right to build homes in certain locations north of the creek, but they are insisting on violating the OPA Specific Plan in order to build the way that is most profitable for them. In the process, they have been successful in dividing the residents of the community forcing them to take sides.

Please do not approve the latest proposal for the “Trails at Santiago Creek”.

Sincerely,

Sarah Hemmeter
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Sarah Hemmeter (HEMMETER 1)

Response to HEMMETER 1-1

Comment noted. Please refer to Master Response 1—Plan Consistency.
Robert Garcia

From: Scott Hemmeter <scott@thehemmeters.com>
Sent: Saturday, December 22, 2018 1:03 PM
To: Robert Garcia
Subject: I oppose the “Trails at Santiago Creek” project

Mr. Garcia,

I am a resident of Orange Park Acres and I oppose the development called “Trails at Santiago Creek”. This development requires a zone change that would change my neighborhood for the worse and violates the OPA Specific Plan that has been in effect for quite some time. I feel that the developer needs to propose a plan that fits within current zoning and also adheres to the OPA Specific Plan.

This developer has been very aggressive in their attempts to change zoning in Orange Park Acres and areas covered by the OPA Specific Plan. We created the OPA Specific Plan for this very reason and I strongly feel that the OPA Specific Plan needs to be adhered to. This developer is trying to allure people with promises of city improvements as a distraction technique to allow them to get the zoning change approved. Don't be fooled by their tactics.

The OPA Specific Plan was created to maintain the rural OPA community, which is a huge asset to Orange and Orange County. There is nothing else like it in the area.

Please do not approve the latest proposal for the “Trails at Santiago Creek”.

Sincerely,

Scott Hemmeter
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Scott Hemmeter (HEMMETER 2)

Response to HEMMETER 2-1

Comment noted. Please refer to Master Response 1—Plan Consistency.
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Good day Mr. Garcia,

I’m writing to you today with major concerns with the proposed development on the Sulley Miller property. This is not a good fit to this area and I’m highly against this development. There is a number of reasons why I’m opposed but to name of few. Traffic and noise issue is a huge problem now and with the added homes will only become a sheer nightmare. It’s gridlock now at high peek times and takes me 30 minutes to go a few miles. Can’t get into my neighborhood. The amount of homes and lot size that is proposed is to many homes on to small of a lot. East Orange will become a typical track home development and not keep with the rural and equestrian ranch style homes on larger lots. Not to mention the environmental impact this will have on air quality dust and toxins from construction and the rodents and other animals that will not have a home. We know where they will go. Into our yards!

Please keep this area an open space and look at this project as a huge impact for this beautiful area. The main reason I moved from west orange to east orange is to get away from congestion and more open area. This will forever be lost and change our quality of life forever.

Please say NO to this project. It’s not a good fit!!

If you could kindly send me a confirmation you received this email.

Thank you.

Kelly Herbeck
6121 E. Shenandoah

Sent from my iPhone
Kelly Herbeck (HERBECK 1)

Response to HERBECK 1-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

Response to HERBECK 1-2
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
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Mr. Garcia,

I apologize to have failed to mention in my prior email that I live in Mabury Ranch and I'm against the Sully Miller development. See my original email attached. Please forward this additional information to the environmental consultant.

Thank you again..

Kelly Herbeck

Sent from my iPhone

Begin forwarded message:

From: Kelly Herbeck <kellyherbeck@sbcglobal.net>
Date: December 21, 2018 at 4:56:53 PM PST
To: Robert Garcia <rgarcia@cityoforange.org>
Subject: Re: Sully Miller

Mr. Garcia,

Thank you so much for the confirmation. Merry Christmas!!

Kelly Herbeck:

Sent from my iPhone

On Dec 21, 2018, at 1:48 PM, Robert Garcia <rgarcia@cityoforange.org> wrote:

Ms. Herbeck,

Your comments will be sent to the environmental consultant for responses and inclusion in the environmental document.

Thank you,

Robert Garcia
Senior Planner
City of Orange
(714) 744-7231

Please be advised that City Hall is closed every other Friday.
For your convenience, please check the City website at
www.cityoforange.org for the calendar of working/closed days.

-----Original Message-----
From: Kelly Herbeck [mailto:kellyherbeck@sbcglobal.net]
Sent: Thursday, December 20, 2018 11:37 AM
To: Robert Garcia <rgarcia@cityoforange.org>
Subject: Sully Miller

Good day Mr. Garcia,

I’m writing to you today with major concerns with the proposed development on
the Sulley Miller property. This is not a good fit to this area and I’m highly
against this development. There is a number of reasons why I’m opposed but to
name a few. Traffic and noise issue is a huge problem now and with the added
homes will only become a sheer nightmare. It’s gridlock now at high peek times
and takes me 30 minutes to go a few miles. Can’t get into my neighborhood. The
amount of homes and lot size that is proposed is to many homes on to small of a
lot. East Orange will become a typical track home development and not keep with
the rural and equestrian ranch style homes on larger lots. Not to mention the
environmental impact this will have on air quality dust and toxins from
construction and the rodents and other animals that will not have a home. We
know where they will go. Into our yards!

Please keep this area an open space and look at this project as a huge impact for
this beautiful area. The main reason I moved from west orange to east orange is to
get away from congestion and more open area. This will forever be lost and
change our quality of life forever.

Please say NO to this project. It’s not a good fit!!

If you could kindly send me a confirmation you received this email.

Thank you.

Kelly Herbeck
6:21 E. Shenandoah
Kelly Herbeck (HERBECK 2)

Response to HERBECK 2-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Dear Mr. Garcia,

I live in Mabury Ranch and would like to comment on the the latest RDEIR. There is so many violations in this current report that just confirms once again this project if flawed for so many reasons. Please look at this report as a sign that this is not good for our community and I'm highly opposed to this project on so many levels. I urge you to please say "NO" to this proposed project!!! This is not a good fit and will have a huge negative impact on our city.

Kind regards,
Kelly Herbeck

Sent from my iPhone
Kelly Herbeck (HERBECK 3)

Response to HERBECK 3-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Ray Hersom <khersom116@yahoo.com>
Sent: Saturday, December 29, 2018 10:18 AM
To: Robert Garcia
Subject: OPPOSE Trails at Santiago Creek

Mr. Robert Garcia
Senior Planner City of Orange
300 E. Chapman Avenue
Orange, CA 92866

Dear Mr. Garcia

I would like to begin this email stating that I OPPOSE the development referred to as “Trails at Santiago Creek” and for several very important reasons that can NOT be ignored by planning officials who are responsible for protecting the environment and citizens for the City of Orange, California. Before I list my reasons, I would like to explain who I am. My name is Karen Golemo-Hersom and I have been a citizen of the community of Orange for over 40 years and I am a graduated of Orange High School (although I will not let you know what year I graduated). I am also an instructor and counselor for Santiago Canyon College going on 20 years and I have helped thousands of the City of Orange citizens young and old alike to become successful in their educational and life goals. All this to say is that I have a vested interest in protecting this amazing city and ALL of the citizens of this spectacular community.

Therefore, I deem it necessary to voice my concerns over this development and here are some researched facts. One, the development is planned to be built on an earthquake fault and zoned open space property. Once again, I find myself putting forth much time and effort to fight for OPEN space property when a vote had already been established that this is NOT what the citizens of City of Orange want. Secondly, it is below two earthen dams which have the potential of creating a flood in a flood zone. Thirdly, the planned site is also in a fire zone which is extremely dangerous and I should know because I was one of the individuals who was evacuated due to the recent fire a couple years ago which destroyed Peter Canyon. More importantly, it took forever to exist and enter back in and this is a costly and major concern. Having more houses will only serve to increase traffic which is not only extremely undesirable it is also potentially a life threatening concern during emergencies. Both the citizens of community of Orange Park Acres which is in the same facility next to Santiago Canyon College would be subject to higher density housing which proves my point that there is a vital threat for an increase in traffic which in turn increases the threat to the environment and the safety of countless of thousands who live and attend college here.

So, I ask you to consciously help the citizens who need your help in protecting both our safety and the environment. Please know that I am OPPOSE to the development of Trails at Santiago Creek.

Sincerely,

Karen Golemo Hersom M.S.

Instructor/Counselor and Citizen of the City of Ora
Karen Hersom (HERSOM)

Response to HERSOM-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to HERSOM-2
Comment noted. Impacts related to active faults are discussed in RDEIR Section 3.6, Geology and Soils. Impacts related to hydrology and water quality, including flood plains, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Please refer to Master Response 5—Wildfire Risk. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: M. Higareda <m.higareda@sbcglobal.net>
Sent: Thursday, December 20, 2018 5:50 PM
To: Robert Garcia
Subject: /We oppose the development called, "Trails at Santiago Creek".

Dear Mr. Garcia,

In efforts to protect our historic, semi-rural community where we continue to raise our children of ages 11 & 13. My wife and I have moved here back in 2002 to offer our family a peaceful country-life style without having to move away from the city. Orange park Acres is a very unique and only community that offers families in Orange County what NO other city can offer within our vicinity. The proposal Milan REI X which has been filed with City of Orange to develop the Sully Miller site threatens our safety, open spaces, zoning which will change what makes OPA offers and reasons we all decided to move here. Also, it will cause worse traffic. For these reasons and including other major concerns, I/We oppose the development called, "Trails at Santiago Creek".

Please hear our families pleaded who contributes and lives in the Community where we all call home!

Sincerely,
Marcos & Melissa Higareda
Marcos and Melissa Higareda (HIGAREDA)

Response to HIGAREDA-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: DOUGLAS HILLMAN <hill10457@aol.com>
Sent: Sunday, December 30, 2018 6:53 PM
To: Robert Garcia
Subject: Fwd: Sully Miller project

>>
>>
>>
>> To: Robert Garcia
>> Senior Planner
>> City of Orange
>> rgarcia@cityoforange.org
>>
>> Dear Robert Garcia,
>> Please do not allow this project to go forward. It is in a flood zone below two earthen dams and with climate change, the chances for more powerful storms is inevitable.
>>
>> A year ago the Canyon II wildfire was headed straight at this property. It was being pushed by Santa Ana winds gusting up to 65 miles an hour. It was coming like a freight train going downhill with no breaks. The only thing that saved the OPA community from being devastated was a sudden wind change. Luck!
>>
>> And there is an old landfill site adjacent to the Sully Miller property which leaks methane gas. That is very dangerous!
>>
>> You cannot mitigate these problems. There is a reason why this is the last large parcel of land in the city that is left undeveloped. It’s a bad place to put homes!
>>
>> Please deny this DEIR.
>>
>> Sincerely, Arlene Hillman, 766 N. Shaffer St., Orange, Ca 92867
>
>
Arlene Hillman (HILLMAN 1)

Response to HILLMAN 1-1
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to HILLMAN 1-2
Comment noted. Please refer to Master Response 5—Wildfire Risk.

Response to HILLMAN 1-3
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

Response to HILLMAN 1-4
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Dear Robert Garcia,

I oppose the development at Sully Miller.

Sometimes it is better to nip something in the bud, quickly. This is one of those times. Trails at Santiago Creek sounds nice but the proposal doesn’t deliver what the community wants. I just read the Sentry article, "Revised hosing plan for Sully Miller ignores neighbors’ concerns and snubs land use mandates". This is exactly my sentiment. Why do they keep wasting our time? Many of us spoke loud and clear at the NOP meeting. There are so many problems with this site, traffic, environmental, trucking soil in and out. Only more problems will be created if 129 houses are approved. I understand they have a right to build 25 houses. Why they would request 100 more is just ridiculous. I could only image trying to evacuate 17 more houses in a fire. I vote that they be required to stick to our plans. They knew what they were going in.

Please deny this application.

Best regards,
Charles Hillman
4317 E. Fairhaven Ave
Orange, CA. 92869
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Charles Hillman (HILLMAN 2)
Response to HILLMAN 2-1
Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: David Hillman <giddyap@att.net>
Sent: Tuesday, December 18, 2018 2:50 PM
To: Robert Garcia
Subject: Dear Robert Garcia,

Dear Robert Garcia,
I oppose the development.
I've followed the Sully Miller site and various proposals over the years. There's a reason why nothing has been built there to date. The self-inflicted damage the developer has caused to the site in the last 10 years is shameful and now they expect to bail them out. Have them build north of the creek. If they don't want to build there negotiate those property rights elsewhere on the property. I personally liked the Alternative E plan that was presented at the NOP meeting last year. Why they ever bought the property in the first place is the mystery question. The Trails at Santiago Creek plan is a non starter a: it violates our plans, impacts traffic and simply has too many unknowns. It is impossible to get a handle on what they are proposing let alone the impacts it will have. No need to waste everyones time, again! Tell them no.

Thank you for your time,

Barbara Hillman
4317 E. Fairhaven Ave
Orange, CA. 92869

Sent from my iPhone
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Barbara Hillman (HILLMAN 3)

Response to HILLMAN 3-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
December 31, 2018

Robert Garcia
Senior Planner
City of Orange
300 East Chapman Avenue
Orange, CA 92866

Re: Sully Miller site – Recirculated Draft Environmental Impact Report for Trails at Santiago Creek proposal

Please confirm receipt.

Dear Robert Garcia,

I respect you and your staff very much, however I just have a feeling that building houses at Sully Miller is a bad idea.

Last year’s October 9th Canyon II Fire was headed right for Sully Miller. The Santa Ana winds were blowing hard. All the vegetation fuel in the Santiago Creek was ready to burn. The traffic on Santiago Canyon Road by Sully Miller was at a crawl. People weren’t able to evacuate. Just a half-mile up the creek from Sully Miller a house on Windes Drive started to burn. The only thing that saved the communities that surrounds Sully Miller from a disaster like the ones at Paradise and Santa Rosa was a sudden wind change. We were very lucky!

In this city, this County, and throughout the state, the rules are changing towards agencies being ultra sure that the ground underneath new construction will hold up to seismic activity, and time. Almost every project now days is required to over dig at least 5 feet below footings and refill at 90% compaction. The reason for this is that municipalities have been losing in court when foundations fail. At Sully Miller there are several old silt ponds that are 30 to 50 feet deep. The creek below the surface follows its ancient route; liquefaction is a concern not to mention the flooding possibilities. Bridges collapsed in the 1969 flood. To build on this site would take an enormous effort to prepare the soils correctly.
I found this quote recently in the newspaper: “Because the RDEIR’s Project Description provides such scant information, it is entirely unclear what actions must occur to ensure that the site can be made safe for human occupation.”

Two planning Commissioners, Adrianne Gladson and Daniel Correa, both of whom were very qualified and have done a good job, have been removed from the planning Commission. Both had opposed the Rio Santiago project in 2014. Why would these qualified individuals be asked to leave? Some say it’s because of pressure from Milan. In my opinion this has the stink of a backroom deal by the developer.

In this project, Milan has said that it is offering the creek and open space to the County. They have done this only to check that box in the RDEIR. The developer has not contacted the county and there is no commitment from them to manage or take ownership. I can’t imagine the County excepting the liability and the expense of managing such a difficult property if new homes are to be built adjacent to the land. So that would mean the ownership and management of the creek and open space would fall on the future HOA, which would be a nightmare.

Milan’s project has a lot of community opposition. In fact if the concrete and asphalt recycling operation were to be closed down, it would be hard to find anyone in favor of building houses on Sully Miller. The only people in favor of the project at this time want the houses to replace the eyesore. The community of Orange Park Acres will fight to preserve their specific plan. The R140, one-acre minimum is hugely important in preserving this equestrian community, as is the promise that Sully Miller remains open space. The opposition to this development in OPA is the most I have seen. I’m speaking from experience. I have been here to witness the fight against Ridgeline and Rio Santiago.

This project would put houses in a flood zone below two earthen dams. The Villa Park Dam being only 1.5 miles up stream. In climate change studies, most scientists predict more severe weather in the coming years. This project is a gamble with nature, which is impossible to mitigate.

Mr. Garcia what are the chances that this project is going to come out in a good way if houses are built?

In my line of work, which is training horses, when things are going the wrong way and you have a gut feeling that an accident could happen it is always best to slow down and take a fresh start. What I mean by this is the property needs to comply with the State Mining Act - SMARA. Everyone should want that especially when the liability risks are certain and very real. The recycling operation needs to be shut down at that location and put in a part of the city that is zoned M2. OC Parks needs to do a feasibility study as to whether it is appropriate for them to take the creek and the open space. And, if the city doesn’t want to get bucked off of this horse by its own citizens, it should honor the General Plan, Santiago Creek Greenbelt Plan, the East Orange General Plan, and the Orange Park Acres Specific Plan.

As is stands there is no proof, analysis or studies to show that the significant impacts I mentioned above can be fixed. The information provided by Milan is inadequate and cannot be relied on. This RDEIR must be denied. This proposal is not good for Orange Park Acre or Orange as a whole.
Best regards,
David Hillman
4317 E Fairhaven Ave
Orange, Ca. 92869

Sent from my iPhone
David Hillman (HILLMAN 4)

Response to HILLMAN 4-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to HILLMAN 4-2
Comment noted. Please refer to Master Response 5—Wildfire Risk.

Response to HILLMAN 4-3
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to liquefaction are discussed in RDEIR Section 3.6, Geology and Soils.

Response to HILLMAN 4-4
Comment noted. Please refer to Master Response 2—Adequacy of Project Description.

Response to HILLMAN 4-5
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to HILLMAN 4-6
Comment noted. Please see Master Response 6—Stewardship of Open Space

Response to HILLMAN 4-7
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to HILLMAN 4-8
Comment noted. Please refer to Master Response 4—Dam Safety and Risk of Failure.

Response to HILLMAN 4-9
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

Response to HILLMAN 4-10
Please refer to Master Response 10—General Comments on Project, General Opposition.
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Robert Garcia

From: Hill10457 <Hill10457@aol.com>
Sent: Sunday, December 30, 2018 2:55 PM
To: Robert Garcia
Subject: Sully Miller

To:
Robert Garcia
Senior Planner
City of Orange
rgarcia@cityoforange.org

Dear Mr Garcia,
What in the world is our city doing letting this developer get away with not complying with SMARA? Are you going to let this developer reclaim the old mining operation and silt ponds for a housing development using just a grading permit as oversite? A developer who in every part of this RDEIR shows signs of taking the low road. What is our city doing to protect its citizens here? It is very difficult to reclaim silt ponds for building sites. This city will become a target of legal actions seeking recovery from the resulting damages to housing foundations. The city needs to put this property in a mining reclamation act to make sure that every detail is done right. You owe it to the taxpayers who will have to pick up the bill for the future lawsuits.

Deny this RDEIR and make this developer comply with SMARA before going forward.

Thank you for your consideration

Doug Hillman
766 N. Shaffer St.
Orange
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Doug Hillman (HILLMAN 5)

Response to HILLMAN 5-1

Comment noted. Please refer to Master Response 7—Applicability of SMARA.
Dear Mr. Garcia,

We are opposed to the Milan “Trails of Santiago Creek” project. The DEIR and subsequent RDEIR is not only inconsistent with the OPA Specific Plan, but is fraught with unnecessary risks and detrimental impacts not only to the immediate community, but to outlying communities as well.

As you are surely aware, the concerns are quite numerous and include, but are not limited to, environmental (soil, flooding, water, air), public safety evacuation issues, and the disregard for honoring the OPA Specific Plan.

Additionally, there is the destructive impact of greatly increased noise, traffic and ensuing roadway congestion. Traffic in the area is already heavy, particularly during the commute hours which can and often do exist from two to four hours per day. It is difficult to fathom that traffic alone would not be significantly impacted by the project as proposed, yet the DEIR stated that, taking the cessation of dump truck activity into consideration, there would be “no significant impact”.

We suggest that the sphere of influence on this issue alone should be expanded as it is not isolated to our community alone but to the hundreds, if not thousands, of commuters who travel these roads regularly.

Of note: The amount that the developer, Milan, is willing to contribute to help remedy this aggravating traffic misery is a mere pittance.

We believe that our community’s concerns have not been adequately addressed, and we ask that our strong objections be thoroughly and honestly studied, weighed, and given great consideration.

Thank you again for your time and service to the community.

Respectfully,

Vickie and George Homer
10542 Morada Dr.
Orange, CA 92869
(408) 483-5895 (Vickie)
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**Vickie Homer (HOMER)**

**Response to HOMER-1**
Comment noted. Impacts related to soil are discussed in RDEIR Section 3.6, Geology and Soils. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. For impacts related to plan consistency, please refer to Master Response 1—Plan Consistency.

**Response to HOMER-2**
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Chris Hooker <chrishook@me.com>
Sent: Friday, December 28, 2018 12:20 PM
To: Robert Garcia; StopSullyMiller@gmail.com; editor@foothillssentry.com
Subject: Opposition to Trails at Santiago Creek

We oppose the development called “Trails at Santiago Creek”.

Milan is an interloper who could have worked, from day one, with the OPA community and they have chosen to threaten safety, open spaces and zoning. They have created the dirty, dusty mess at The old Sully Miller site which never looked even close to what it does today. Their fight is against existing zoning and specific plans for their benefit only. 200 plus additional units in this community? The traffic is maxed out and every one of their plans has opted to magnify that problem many times over in the future.

Just say no to a developer who bought property with a plan to make money at our community’s expense. Don’t let them change our semi-rural community while raising the tax base of Orange. That is short sighted. Think on a higher level to protect and defend an historic part of your city.

We oppose the strong-arm ways of Milan.

We oppose the development “Trails at Santiago Creek”.

Jay & Donna (Chris) HOOKER
1415 Mustang Ave
Orange 92869
714 299-9662
Jay and Donna (Chris) Hooker (HOOKER)

Response to HOMER-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
The Sully Miller site is bordered by Santiago Creek requiring environmental impact reviews and mitigation measures be meticulously defined. County of Orange and City approved Flood control and evacuation plans must also be defined to protect property and life. The site is situated by Santiago Oaks Park as you know so this should be mandatory. Failure to require is negligent. The site is situated in a high fire zone and in a flood inundation zone something previous builders such as Fieldstone have been required to address in their proposals to community and government officials. The site is also bordered by a land fill which has been capped off but I am sure this along with the mining operations that took place years ago on the gravel site all require much pollution and air quality protection measures. I know when studying the Fieldstone project these issues were more thoroughly detailed. The site is also located in an already congested traffic intersection leading to dangerous merging of cars on to Cannon from Santiago Canyon Rd, This is directly in front of the project building site and location of future grading and trucking of dirt. The site import and export figures and actual impact to traffic can not be merely some random guess. The neighborhoods of Orange and Villa Park are witnessing the local street impact from the offloading of traffic from the 241 FWY on to our local streets up and over Chapman and Katella. Santiago Phase II (?) will be built out soon and only add to this congestion. Please pause and ask for more detail. You currently do NOT have the information required to make an informed or careful decision.

Thank you for your consideration,

Mark A. Huff
10831 Meads Ave
Orange, CA 92869
Mark A. Huff (HUFF 1)

Response to HUFF 1-1
Comment noted. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Please refer to Master Response 5—Wildfire Risk. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

Response to HUFF 1-2
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Please refer to Master Response 7—Applicability of SMARA.

Response to HUFF 1-3
Comment noted. Impacts related to truck trips, please see Master Response 9—Soil Import/Export Numbers.
The criteria for a major amendment to the City of Orange General Plan has been challenged and denied by this developer in the past. It cost our neighborhood greatly in resources, money and good will. Milan Capital, the developer at that time tried to entice the neighbors of OPA with an arena dividing the community. They did so in the hope of fooling the city into changing zoning laws. But acreage, neighborhood character, and open space zoning prevailed in the courts of law.

The developer Milan REI X is now once again seeking another acreage zoning change and this time it will impact both the general and specific plans of Orange Park Acres. By reducing the one acre minimum parcel development criteria to something smaller such change is essentially inviting subdivision within our small equestrian community. Reducing the one acre minimum will encourage higher density housing, traffic and a change in the character of our neighborhood. The impact will also greatly reduce the desire for equestrian lifestyles. Horses need space. It will burden the small country streets and trails we work so hard to maintain. Less people will build barns and arenas on smaller lot sizes. The increased traffic will make street crossings to trails unsafe.

I myself live on 2.7 acres off of the Meads loop. My address 10831 S. Meads Ave. Orange Ca. During the recession, I looked into subdividing my property. as my family is in construction. Fortunately, for me the economy improved and I did not have to sell off any land. But in the future, if you change this zoning this could change for me and for others. Generations of people will slowly chip away at this acreage and the barns and the horses will disappear. That is why you as our city planner were thoughtfully put in charge to STOP this from happening. Please enforce the one acre zoning for this special place. The Sully Miller location greatly impacts everything we do.

Thank you,
Sarah A. Huff M.S.L.A
Sarah A. Huff (HUFF 2)

Response to HUFF 2-1

Comment noted. Please refer to Master Response 1—Plan Consistency.
Dear Mr. Garcia,

I am writing to let you know that we oppose the development called, "Trails at Santiago Creek". Our family has lived in Orange Park Acres since 1991. The traffic is so congested on Santiago Canyon that it makes it nearly impossible to exit our neighborhood on Windes without encountering bumper-to-bumper traffic. In addition, Santiago Canyon is so loud from the traffic that I have to keep my windows closed just so I can enjoy some peace and quiet. We do not have the space nor resources, especially water, for more homes and cars. Every square foot of land does not need to be occupied by houses, nor do the hills need to be developed for houses, either.

Thank you for your time.

Nancy and Tim Hume
1653 N Dressage
Orange

(714) 271-6992
Nancy and Tim Hume (HUME)

Response to HUME-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.
Robert Garcia

From: Peter Jacklin <peterjacklin@outlook.com>
Sent: Sunday, November 18, 2018 4:19 PM
To: Robert Garcia
Cc: Herb Levy; Theresa Sears
Subject: Comments on the Trails Recirculated DEIR

Robert,

I have begun to read the Traffic section of the RDEIR. At this point, I have three (3) comments with lots more to follow.

1. It’s the Orange Park Association, not the Orange Park Acres Association nor the Orange Park Homeowner’s Association. I’m surprised that Jason Brandman, whose mother was once president of the OP Association, doesn’t know better.

2. I was told by Joe de Francesco, before he retired, that the widening of Cannon Street and the additional right turn lane on Santiago Canyon Road had been planned by the city staff before the TASC DEIR hit the presses.

3. From the little that I have seen of the RDEIR, it shows as the DEIR showed, that the application has little understanding of the needs and interests of the Orange Park Acres community. A real interest in the community can be shown by the applicant’s understanding of the community’s desire to REDUCE traffic on Santiago Canyon Road. Presently, a study on the traffic situation is being conducted by the City of Orange, OCTA and TCA in a combined effort. Once the results are in it’ll make sense to construct solutions from what was learned. I can’t accept the ideas presented in the REDIR at this time – perhaps, those ideas will make sense later.

Peter Jacklin
(commenting outside of any role association with the Orange Park Association)
1436 N. Stallion Street
714-381-6395 (M)
Peter Jacklin (JACKLIN 1)

Response to JACKLIN 1-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to JACKLIN 1-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to JACKLIN 1-3
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Peter Jacklin <peterjacklin@outlook.com>
Sent: Friday, December 21, 2018 5:23 PM
To: Robert Garcia
Subject: Second response to the Trails at Santiago Creek RDEIR

Importance: High

Robert, thanks for the opportunity to have my thoughts included.

Merry Christmas and a Happy New Year to yours and you.

My thoughts:

1. The references to the “area of regional significance” make no sense, show an unawareness of the law and argue that two wrongs (“I dumped all the dirt on the property and it’s too expensive to remove it.”) don’t make a right (“the property is no longer an area of regional significance.”) The July 2018 edition of SMARA make it perfectly clear that the property remains with the designation.

2. As I mentioned earlier, the traffic plan will do absolutely nothing. Within the proposed architecture, the only thing that would help is if the exit lights for TASC turned green during non-peak hours, effectively locking TASC residents inside the property. I'll reiterate that the RDEIR shows no understanding of the area's traffic conditions.

3. To further my thoughts on traffic, there is only one exit from the property. Remember the fire? Any inhabitants inside TASC would have died because they would not have been able to exit. The traffic on SCR was stopped during the evacuation, largely because traffic from the toll roads was routed through the area. Equestrians were trying to get their horses to the arena. 128 more homes would have caused a poorly managed exodus to become an disaster.

4. The following have been identified as difficulties with the property:
   a. The inundation zone – generally accepted to be 15 feet of water during a 100 year flood
   b. The more than 80 year old earthen Villa Park which has the Terrace (?) fault beneath it and close by.
   c. The Irvine Lake Dam - a bit farther upstream but none the less dangerous
   d. The methane producing Villa Park landfill. Experienced OC Health professionals believe that no homes should be built with 1000 feet of the property. The test and containment vessels are more prominent on the Santiago Canyon Road side and the Cannon Street side. One wonders if OC Waste didn't care as much about methane leaking into the TASC property. Methane goes where it wants to go.
   e. The liquefaction possibilities on the property – most heavily on the western (?) side of the property
   f. The toxic materials that exist on the property that have been covered up with 1,000,000’s of cubic feet of more toxic material
   g. Santiago Creek, its rehabilitation, and its ongoing maintenance. There are EPA concerns with this part of the property that have not been addressed properly
   h. The northern part of the property, it’s rehabilitation and its ongoing maintenance. There are EPA concerns with this part of the property that have not been addressed adequately
   i. The increasing fire dangers, as noted above

5. Some of these (immediately above) factors are mitigatable; others are not. There are far too many that are not. The project, as proposed is not feasible.

6. There is really nothing new in the RDEIR other than the number and sizes of buildings. The same dangers exist.

7. The largest danger that exists is that this project gets approved, the project is built and people lose their family fortunes or their lives because of the unmitigable factors mentioned here. The city, hence its taxpayers, are on the hook for a very large and unspecified liability.

8. The RDEIR, like its predecessor and the DEIR for Rio Santiago are not certifiable and should not be certified. There are far too many loose ends in the proposal. Much of the deal is a “bet on the cone.”

9. I can’t understand why the deal is presented as part of the RDEIR and the DEIR. These are CEQA documents and should deal only with environmental aspects.

10. I remain firmly convinced that, at the very best, the land cannot be built on economically. That the project can never recover its costs. At the very worst, the land cannot sustain housing developments at all.

Robert, please forgive my inadequate language construction in this response. I replied earlier and this is a continuation and, in some cases, a repeat of my earlier comments.

Please pass on my thanks to Milan Capital for taking away a good part of my holiday. Another great example of how Milan cares about the community.

Thanks again for taking this response in your capable hands.

Peter Jacklin
1436 N. Stallion Street
Orange 92869
P.S. As my Christmas joy diminishes, I may a few other comments to pass on.
Peter Jacklin (JACKLIN 2)

Response to JACKLIN 2-1
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

Response to JACKLIN 2-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to JACKLIN 2-3
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to hazards are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to JACKLIN 2-4
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Response to JACKLIN 2-5
Comment noted. This comment does not raise any questions about the environmental analysis. No further response is necessary.
Dear Mr. Garcia,

After so many years of dealing with a malicious, self-serving land speculator who has shown no consideration for this community, I strongly ask you to **not** give any concessions regarding changing the Orange Park Acres/East Orange General Plan and allowing more units to be developed on the Sully-Miller site.

As a long time (30+ years resident) of the East Orange area, including Villa Park, I think that the damage done by continuing operations at the Sully-Miller site has already been alarming and far-reaching. It has impacted my air and water and the ambiance of a good community. I’m tired of the bullying. **I would not trust any environmental report from this company. And I would not trust this company to clean up the mess they have made there.** Milan could be impacting the creek either outright or unknowingly from the mounds of uncovered and unprotected piles of aggregate. They are adding to the dreadful issue of high dissolved solids in the hard-drinking water of Villa Park. This is irresponsible and I would not do a thing for this company until the site is cleaned up adequately. I would give the Serrano Water District and the City of Villa Park time to critique and monitor this project and the cleanup oversight must be done by respected experts chosen by the cities and the water district.

I am disappointed that the City of Orange pushed the public comments through during the holiday season. It seems to be inappropriately anti-community gamesmanship. As I write this, I am out of town and not on my regular computer trying to enjoy my vacation and family. Please stand up for the East Orange/OPA/Villa Park communities. Milan continues to act in bad faith. This is an inadequate environmental document that cannot be adopted by our city.

Thank you,
Thea Johnson

Sent from my iPad
Thea Johnson (JOHNSON)

Response to JOHNSON-1

Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Furthermore, the City of Villa Park provided a response to the RDEIR. A response to that letter is listed in this document under Local Agencies.
City of Orange,
As a 5 year resident of OPA, I strongly oppose ANY change of zoning that would negatively impact the unique equestrian community we have all worked so hard to protect. OPA is an equestrian utopia in Orange County and needs to be protected and preserved. We already struggle with traffic and horses coexisting and the possibly of 200 new homes and traffic is inconceivable.
Those of us who call OPA home have done so based on the land use plan we currently have which insures the future of this uniquely equestrian community. Allowing the Trails at Santiago Creek to move forward would ruin the community we have built. The current homeowners have made substantial investments in our homes based on the development plan we understood was in place. Throwing in high density housing tracts in this area is simply ridiculous.
I am completely against the proposed development known as the Trails at Santiago Creek and would be extremely disappointed if the City of Orange even considered changing the entitlements to allow such an inappropriate development in OPA.

TERESA JOHNSTON
REAL ESTATE PROFESSIONAL
VILLA
M. 714 425 2912
T. 949 698 1924
F. 949 698 1925
VILLA REAL ESTATE
2700 E. Coast Hwy, SUITE 100
CORONA DEL MAR, CA 92625
VILLAREALESTATE.COM
CAI. BRF No. 01912242
Teresa Johnston (JOHNSTON)

Response to JOHNSTON-1
Comment noted. Please refer to Master Response 1—Plan Consistency.
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December 23, 2018

To: Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Ave.
Orange, Ca 92866

Dear Mr. Garcia,

I live at 7124 Grovewood Ln. Orange, California. I am extremely concerned about the project “Trails at Santiago Creek”. To think of 200 plus homes going in there is a nightmare. The traffic congestion on Santiago Canyon Rd. at commuting time is a nightmare. The only exit street to Santiago Canyon Rd. from our area is Windes Dr. If you are going somewhere between 4:30 P.M. and 6:30 P.M. you need to leave at least 20 minutes early, and you creep all the way to Cannon, and then when you turn onto Cannon, (Imperial) you creep until you are past Serrano. Adding that many more people and cars into that area will only increase the already impossible traffic situation.

And you may want to consider the fire danger for this area. Not only for the fact that so many fires spread up the creek, but in the Canyon 2 fire last year, I evacuated as told to do. After getting into the nearly stopped traffic on Santiago with no where else to go, I thought—if the fire comes down this way, I’ll be burned in my car!—Think Paradise.

So many open spaces have been planned for that area and never come to fruition. Orange needs open recreational places for her citizens, and with that site being an old dump, with methane gas emanating from it, it seems that there are many more strikes against it than even the traffic. Please consider the living problems already in place for the Orange citizens before allowing a project that will only add to the misery of us already suffering the terrible traffic.

Sincerely, Mary Ann Jones
7124 Grovewood Ln.
Orange, California 92869
Mary Ann Jones (JONES 1)

Response to JONES 1-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to JONES 1-2
Comment noted. Please refer to Master Response 5—Wildfire Risk.

Response to JONES 1-3
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.
Robert Garcia

From: Susan Jones <midorij@aol.com>
Sent: Thursday, January 3, 2019 8:21 AM
To: Robert Garcia
Subject: Opposition to Sully Miller Development

To: Robert Garcia
City of Orange
rgarcia@cityoforange.org

Dear Robert Garcia,
Here is a quote from a front page article in our Orange County Register, Monday Dec. 10,2018:

Headline: “Half of region has burned in wildfires over the past 68 years, yet we fail to act”
First sentence: “With tens of thousands of structures in California destroyed by wildfire and at least 125 people killed in the past two years, how dumb are we to allow developers to build neighborhoods that jeopardize safety? Pretty darn dumb.”
Written by David Whiting, columnist for the Register

I am opposed to the building of houses that would obviously be put in harms way. This project should be denied and Sully Miller should be left to be open space. Open, public use appears to be the safest and best use for this land.

Sincerely

Susan Midori Jones
Sent from my iPad
Susan Jones (JONES 2)

Response to JONES 2-1
Comment noted. Please refer to Master Response 5—Wildfire Risk. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.
Robert Garcia

From: Gayle Keyes <gkeyes@me.com>
Sent: Sunday, December 30, 2018 3:08 PM
To: Robert Garcia
Subject: Trails at Santiago Creek

My husband and I oppose the development called "Trails at Santiago Creek". We wish to protect this historic, semi-rural community we live in. We do not need the extra traffic on Santiago Blvd. We do not wish to lose our open spaces. Put your every effort to stopping this.

Gayle and Gerald Keyes
7626 Appaloosa Trail
Orange, Ca 92869
Gayle Keyes (KEYES)

Response to JONES-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Mr Garcia

The development called "The Trails at Santiago Creek" is totally flawed. The Eir is rehash of the last plan with the exact same flaws as the last one.

One giant flaw is the developers plan to donate the open space to the Country of Orange Park system. Yes the land was planned for future park land either the City or the County but no one wants nor will they except the land in its current condition. The land has been Degraded by this developer and is no longer an asset. The developer thinks he is dumping his liability on some stupid park system and it will not happen. If he had anyone interested in taking it his plan would have letters of acceptance. Until Milan Capitol works out a plan of returning the land to its nature state with either City park system or County Park System this plan or any plan is dead in the water.

This plan enriches the developers at the cost of the citizens of Orange

Bob Kirkeby
Bob Kirkeby (KIRKEBY 1)

Response to KIRKEBY 1-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to KIRKEBY 1-2
Comment noted. Impacts related to open space are discussed in RDEIR Section 3.15, Recreation. Please see Master Response 6—Stewardship of Open Space
Robert Garcia

From: Bob Kirkeby <stopsullymiller@gmail.com>
Sent: Sunday, December 30, 2018 6:36 AM
To: Robert Garcia
Cc: Bob Kirkeby
Subject: Trails at Santiago Creek

Who do you represent? Is it the developer or the Citizens of Orange? So often it is the developer. You have been working with the developer for an extended period of time. You have become friends with the developer over time. Certainly you feel special with your new best friend the lobbyist who never has a harsh word for his new best friend. Amazingly when the project is over they won’t even remember your name.

The Citizens will remember. We will be left with the results of your actions. The Trails at Santiago Creek is truly an awful project the developer knows it, you know it and the community knows it.

There are so many problems with this project that can not be mitigated any of these problems should be enough to kill the project for ever.

1. Traffic has come to a stop in this area. Irvine Company is building another 1200 houses up road from this area that will add a huge amount additional traffic. For ever we are going to be left with grid lock.
2. It is unavoidable that methane gas will be leaking into the homes. When the area gets a lot of rain the geology will change and it will become severe.
3. The project proposes to take 98 acres of property that is zoned open space and turn it into 60 acres a net loss of 38 acres. The community needs more open space not less.
4. The area floods, I have seen that area under 4 feet of water and it will happen again.
5. The area is in a dam inundation zone. I want you to use your imagination. A big rain year combined with an earthquake. What do you think will happen to this development. It could happen in 50 years or tomorrow, But it will happen.
6. Liquefaction of the soil when we have an earth quake. This was a working gravel pit do really believe that it is possible to stop it from happening.

Everyone of these issues have happened in other places with similar conditions why does The City of Orange gain from taking on tremendous future liability?

Bob Kirkeby
20171 Hillside
Orange Ca 92869
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Bob Kirkeby (KIRKEBY 2)

Response to KIRKEBY 2-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to KIRKEBY 2-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to KIRKEBY 2-3
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

Response to KIRKEBY 2-4
Please see Master Response 6—Stewardship of Open Space

Response to KIRKEBY 2-5
Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to KIRKEBY 2-6
Comment noted. Please refer to Master Response 4—Dam Safety and Risk of Failure.

Response to KIRKEBY 2-7
Comment noted. Impacts related to liquefaction are discussed in RDEIR Section 3.6, Geology and Soils.

Response to KIRKEBY 2-8
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
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Dear Mr. Garcia,

The Trails at Santiago Creek proposal should be rejected right out as it does not comply with the OPA Specific Plan that designates the site open Space – Santiago Greenbelt Plan. The various proposals that have been presented to Milan in the last couple years have all been rejected by Milan. I take that as a signal, it’s best to go back to our Plan and follow it.

The Revised DEIR fails to adequately describe the project proposed as it fails to tell us all the impacts that it will bring. The proposal completely ignores our OPA Plan. There are no provisions for horses or animal keeping. Their subdivision could be plopped anyway.

The RDEIR represents a complete disregard for those that represent our neighborhoods, those that attended the 2016 NOP meeting and those that sent in their NOP and DEIR comments. Those comments were never responded to. We also gave Milan clear direction that we felt Alternative E (25 homes on 25 acres) best represented our community. All of that input was ignored.

The outdated RDEIR data and lack of information makes it virtually impossible to analyze the traffic, truck hauling trips and safety impacts such as methane gas, dam inundation, fire response, evacuation and safe passage. It’s impossible to understand how the creek will be treated which affects the waterway, wildlife and the biology. We simply cannot assess these impacts with the information provided, which is a clear violation of state law. There is no choice but to deny this project. I vote no on Trails of Santiago Creek and complete rejection of the RDEIR.

Sincerely,
Katrina Kirkeby
20171 Hillside Drive
Orange, CA 92869
Katrina Kirkeby (KIRKEBY 3)

Response to KIRKEBY 3-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to KIRKEBY 2-2
Comment noted. Please refer to Master Response 2—Adequacy of Project Description.

Response to KIRKEBY 3-3
Comment noted. Please refer to Response to FHBP-2.

Response to KIRKEBY 3-4
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Please see Master Response 9—Soil Import/Export Numbers. Please refer to Master Response 4—Dam Safety and Risk of Failure. Please refer to Master Response 5—Wildfire Risk. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.
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Robert Garcia

From: Nora Kirkeby <norakirkeby@gmail.com>
Sent: Sunday, December 30, 2018 10:29 PM
To: Robert Garcia
Subject: Santiago Creek

I thought that we had won this battle already, but apparently it's going to continue through my lifetime.

The proposal Milan REI X has filed with the City of Orange is dispicable.

The Sully Miller site has been open space since my childhood. That's a 30 year track record and it's an important part of this community. This plan will ultimately threaten safety and worsen traffic.

I oppose the development called, “Trails at Santiago Creek.”

Do the right thing,
Nora Kirkeby
Nora Kirkeby (KIRKEBY 4)

Response to KIRKEBY 4-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
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----- Forwarded Message ----- 
From: Pat Klinker <patklinker@yahoo.com>
To: rgarcia@cityoforange.or <rgarcia@cityoforange.or>
Cc: StopSullyMiller@gmail.com <StopSullyMiller@gmail.com>
Sent: Thursday, December 20, 2018, 3:51:51 PM PST
Subject: Trails at Santiago Creek project

Attn: Mr Robert Garcia
Senior Planner, City of Orange

Mr. Garcia, I have lived in Orange Park Acres for 30 years and have loved every minute of my time here. 
Over the years, I have witnessed the city allow changes, to our rural area, that have not always turned out to be as good as it might have looked on paper. I grew up in an area like this and moved here for the 'community' feel that is very rare in most areas anymore. I have watched neighbors, that don’t even know each other, come to help when something has happened .... total strangers helping other strangers and never once hesitating to help. I understand that sometimes 'progress' can get in the way of common sense but to add another big development to our 'rural' community is NOT what OPA is about. If I read the article in the Foothills Sentry right .... we will soon be losing another part of what has made OPA special ... the developer will be taking away the arena and the City of Orange is allowing it, even though everyone I know is opposed to it. Now the City of Orange could allow the development of the Sully Miller site to threaten our open spaces once again. I TOTALLY OPPOSE THE DEVELOPMENT CALLED, "Trails at Santiago Creek". This project can threaten our safety with the increase of more traffic thru Orange Park Acres. I live along Orange Park Blvd. and have seen a huge increase of traffic, speeding, without any concern that this is a equestrian community. People riding horses, walking their dogs and other pets, walkers and joggers, bike riders and even an occasional horse and buggy are putting themselves in danger already with the our current traffic problems, adding more traffic to OPA is just asking for trouble. Another large community like the "Trails at Santiago Creek" will only make things worse for all of us that live here. Amending existing general and specific plans, to allow Milan's plan to take land that is not zoned for houses, is totally against everything this community is about. Do not allow this to happen, it threatens our safety, open spaces, worsens traffic and could effect future zoning in Orange Park Acres.

Pat Klinker
Orange Park Acres resident
**Pat Klinker (KLINKER)**

*Response to KLINKER-1*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

*Response to KLINKER-2*
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Vee Kay <vfk2307@hotmail.com>
Sent: Monday, December 31, 2018 10:35 PM
To: Robert Garcia
Subject: I oppose the development called, "Trails at Santiago Creek" because ......

Milan's new RDEIR isn't much better.

1. It fails to meet the requirements of the California Environmental Quality Act (CEQA)  
2. Conflicts with the fundamental policies of the Orange General Plan and the OPA Plan  
3. Fails to address and analyze the projects potential to create significant hazard to the public and environment - it defers analysis and mitigations  
4. Milan now estimates construction activities will require up to 275,400 truck trips for grading but their import/export figures in the technical appendix are higher  
5. There is no way to gage the impacts that would be added as there is no reclamation plan included  
6. The RDEIR is riddled with errors such that you cannot evaluate the real impacts to public health and safety, traffic, air quality, noise, hydrology, hazards or climate change.  
7. The document raises more questions than it answers.  
8. Approval of this project would violate State Planning and Zoning Laws.  

Milan's project adds unnecessary risks. "You don't build in a flood plain, next to a landfill that is prone to natural hazards: dam inundation, methane gas, wildfires, earthquakes and liquefaction." Orange taxpayers should not be exposed to these high-risk liabilities.

- This project sets an extremely bad precedent for Orange and OPA.  
- The City is not obligated to approve bad projects.  
- The City should not expose taxpayers to unnecessary liabilities.  
- Existing plans must be honored including the property rights of existing residents.  

Regards,
Vernon F. Kowitz
7725 E. Sandberg Lane
Orange, CA 92869
714-225-5747
**Vernon Kowitz (KOWITZ)**

**Response to KOWITZ-1**
Please refer to Master Response 10—General Comments on Project, General Opposition.

**Response to KOWITZ-2**
Comment noted. Please refer to Master Response 1—Plan Consistency.

**Response to KOWITZ-3**
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

**Response to KOWITZ-4**
Comment noted. Please see Master Response 9—Soil Import/Export Numbers.

**Response to KOWITZ-5**
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

**Response to KOWITZ-6**
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to hazards are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials.

**Response to KOWITZ-7**
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

**Response to KOWITZ-8**
Comment noted. Please refer to Master Response 1—Plan Consistency.

**Response to KOWITZ-9**
Comment noted. Please refer to Master Response 4—Dam Safety and Risk of Failure. Please refer to Master Response 5—Wildfire Risk. Impacts related to earthquakes and liquefaction are discussed in RDEIR Section 3.6, Geology and Soils. Furthermore, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.
Response to KOWITZ-10
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to KOWITZ-11
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to KOWITZ-12
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to KOWITZ-13
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Robert Garcia

From: Ken Kribel <kkribel@icloud.com>
Sent: Friday, December 28, 2018 6:29 PM
To: Robert Garcia
Subject: Trails at Santiago Creek
Attachments: Scan_0003.pdf; Scan_0002.pdf

Robert Garcia
City of Orange Community Development Department
300 E Chapman Ave.
Orange, CA 92866

Re: Trails at Santiago Creek

Dear Mr. Garcia,

Thank you for your time working on this project. As you know there have been several attempts to develop this toxic eye sore, but the community has always banned together to reject unfair one-sided proposals by developers.

The current proposal has many issues with the RDEIR, such as pollution, open space, import/export of soil, specific plans and my biggest issue is traffic.

I am enclosing random pictures I took during a one-week period. The traffic morning and evenings is horrendous. It is bumper to bumper every weekday. If you have not seen it for yourself drive there any morning or evening and imagine having to deal with that every day.

There needs to be suitable solution to this issue. Adding more stop lights is not, that would create gridlock.

I would be for the development of the Trails at Santiago Creek if the number of homes was a compromise between the current zoning that allows 46 homes and the 123 proposed by the developer, and if the public and the city of Orange receive benefits that outweigh the negative impacts.

The project should be built on only 40 acres leaving 70 acres of open space, bridge access to the trails crossing Santiago Creek, Ridgeline to the city with the possibility of golf (which would be the ONLY golf course in Orange) and tennis returning, the possibility of a horse arena, clean up of the Creek and a plan to ease traffic.

The Milan company knew what they were buying. Why should the citizens of Orange bail them out if they do not want to compromise?

My additional thoughts, not sure why they have not been shut down for contaminating and polluting the neighborhood. Did Milan put up any money for clean up if they walk from the dump? Has the city considered a bond to purchase the land and make it a park?

Sincerely,
**Ken Kribel (KRIBEL)**

*Response to KRIBEL-1*
Comment noted. The comment consists of introductory remarks that do not raise any questions about the environmental analysis.

*Response to KRIBEL-2*
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to open space are discussed in RDEIR Section 3.15, Recreation. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Please refer to Master Response 9—Soil Import/Export Numbers. The commenter does not elaborate further; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.

*Response to KRIBEL-3*
Comment noted. Please refer to Response to SMW-17.

*Response to KRIBEL-4*
Comment noted. Please refer to Master Response 1—Plan Consistency and Master Response 6—Stewardship of Open Space.

*Response to KRIBEL-5*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
I am in opposition of the purposed development of the project called Trails at Santiago Creek.

This area is subject to fires and flooding and is unnecessary. Chapman University is developing like crazy. Please leave the Santiago area alone.

Traffic is already bad. Please don’t add to an unresolved problem. Enough is enough

Long time resident in Old Town
Nannette Kuhl

Sent from my iPhone
Nannette Kuhl (KUHL)

Response to KUHL-1
Comment noted. Please refer to Master Response 4—Dam Safety and Risk of Failure and Master Response 5—Wildfire Risk.

Response to KUHL-2
Comment noted. Please refer to Response to SMW-17.
Nick Lall  
6231 E. Mabury Ave.  
Orange Ca., 92867  
December 21, 2018

Robert Garcia, Senior Planner  
City of Orange,  
Community Development Department, Planning Division  
300 E. Chapman Avenue, Orange, CA 92866

Dear Mr. Garcia,

I am writing regarding the Trails at Santiago Creek RDEIR. I have reviewed the document, not word for word but enough to be informed of its contents. I have also been involved in dozens of meetings with the land owners’ representatives and the communities of Orange Park Acres, The Reserve and Mabury Ranch. I consider myself to be very well informed with the overall project itself and to have been involved with previous attempts to develop this property.

It is my opinion that the REDEIR very adequately addresses the environmental issues surrounding the impacts of the proposed development and development alternatives. I believe any deficiencies in the report will be identified by experts qualified in the respective fields examined in the report.

This is a recirculated DEIR, and most of the issues with it have been identified and addressed. Most of the comments were not from experts in the respective fields but lay persons such as myself. Almost all the comments came from persons that oppose the project and have used the EIR process as a means to stop the project.

I live directly adjacent to the subject property. The current use, although temporarily idled as a concession to the surrounding neighborhoods, poses the greatest negative environmental impact.

Before the applicant temporarily curtailed operations, there was significant noise and traffic impacts to the surrounding communities. I believe the number of truck trips, at its peak operation, equated to almost 800 vehicle trips per day. Noise from the heavy equipment’s back up alarms and the deafening grinding of concrete scraping the bottom of the dump trucks as it was offloaded could be heard for over a mile away. Dust from the operations also escaped from the property, not only during operating hours but from the strong Santa Ana winds that regularly blow through the area.

The current and past uses of the property are the cause of the almost total absence of native flora and fauna on the subject property. The only wildlife that I personally witness to inhabit the area are coyotes, rattle snakes, rabbits and rats. All other wildlife appears to be transitory, such as birds
Robert Garcia, Senior Planner
December 21, 2018
Page 2

and an occasional bobcat going from one side of the property to the other. Santiago Creek is a very clear example of the devastation that past operations have had on the property. In its current state the creek does not host nesting or breeding grounds for native species of birds, mammals or fish. Invasive non-native vegetation chokes the creek along with abandoned cars and other refuse dumped in the creek over decades of misuse.

The creek that flows in areas that have not been quarried and used as a dump provides natural habitat for species native to this area. Other areas that have been degraded by human use/neglect have been restored. Native vegetation was replanted and wildlife native to the region has returned. This type of restoration could happen in the section of Santiago Creek that runs through the subject property. The applicant has offered $4,100,000 to facilitate that restoration. That is an environmental impact I can live with!

Removing any contaminated soil and the mountains of stored dirt and debris from the site will further enhance the property and surrounding area. By using the economic engine created by building 128 homes to accomplish this goal makes sense. For over 20 years this site has been proposed for development and not one has offered to restore the property. Every time the community has stopped the development with the promise to find funding to keep it open space. No funding to acquire the property has ever been found let alone the money to rehabilitate it.

From an environmental standpoint, the proposed project does far more to mitigate past environmental devastation than the development of 128 homes could cause. By a wide margin, this project offers a net environmental positive.

Sincerely,

Nick Lall
**Nick Lall (LALL)**

*Response to LALL-1*
Comment noted. This comment supports the development of the project and no further response is necessary.

*Response to LALL-2*
Comment noted. This comment supports the development of the project and no further response is necessary.

*Response to LALL-3*
Comment noted. This comment supports the development of the project and discusses the impacts of the current operations related to truck trips, noise, and dust. No further response is necessary.

*Response to LALL-4*
Comment noted. This comment supports the development of the project and no further response is necessary.

*Response to LALL-5*
Comment noted. This comment supports the development of the project and no further response is necessary.
Dear Robert García,

Robert, I am a resident on Nicky Way. I was born and raised in Orange. I am opposed to the development called "Trails at Santiago Creek." I believe the development will lead to more congestion. That we don’t need. Presently it extremely difficult to go west on Santiago Canyon Rd. From Nicky way between 4 pm and 6:30 pm. Please, no more people and no more cars.

Thank you for your consideration.

June & Dr. Dave Larson
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Jim and Diane Larson (LARSON)

Response to LARSON-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Response to SMW-17.
As you drive by the Cannon/Santiago intersection have you noticed the bare land with Methane removal system implemented many years ago? Or did you notice the burning stack in the night? That is the long closed Villa Park Dump. Back when there was No EPA, no restrictions on what you I dumped. It operated when East Orange and Villa Park were Orange and Avocado Groves and Packing plants, Farms and Chicken Ranches. No one knows what kind of toxins and waste was left there in the 50’s and 60’s. NO ONE CARED. It was decades later when methane was noticed on the South side of Santiago Road in back yards and tree wells along the road. The realization of that gas migration and build up was a threat to humans, whether by fume or explosion, prompted the Methane Mitigation System that is in place.

What about the other Toxins, Poisons and risky elements buried along the Creekside that empties into the Hewes Pit down at Hewes and Santiago? A former sand and gravel operation left the Pit and it was later set up to feed the aquifers that run under Orange and all of Orange County. From those aquifers, a lot of water is pumped for human consumption. Local Water Districts test and say it is safe. I believe the same was said to those in Flint, Mich. However, over the years I have had many friends in East Orange with cancer and particularly breast cancer. Is it related? Who knows because it is hard to find such causes when they are not looked for. What water companies test for is more along the line of bacteria as I understand it.

The property East of the former Dump was previously owned by the same outfit that ran the Sand/Gravel operation at Hewes, Sully/Miller. It later changed hands but it was always more of a Sand/Gravel processing site with large settling ponds for silt from the sand/gravel cleaning. There were also truck and equipment repair areas which serviced and fixed vehicles. If you believe what an old electrical contractor who was doing site improvements on the site back in the late 80’s and into the 90’s, automotive waste was sometimes if not frequently dropped into the silt ponds rather than comply with newer regulations. Now Mr Davidson, who related these stories had no physical proof, but draw your own conclusions. A manager says, we can pay to handle this properly or it can go in the 'quicksand'. What could go wrong? Call the EPA and see how it's bureaucracy works. Others as well as I have. Tell me if you get past reception personnel or if/when you do, are you taken seriously? BTW, The current Asphalt/Concrete crushing mountains are simply an irritant the Milan Company has said will be there until they get their way on Development. Not you best of neighbors.

That property, East of the old dump site and between Santiago Road and Santiago Creek is again being pushed for Development by Milan Capital. With a seriously lacking Environmental Impact Report they are using some key people in East Orange to promote their agenda. Now remediation of the Sand/Gravel site would involve digging out massive amounts of earth with who knows what toxins in it to lay in a barrier against the Methane migration and then venting and monitoring on the proposed site. So if it is developed, when you drive up to your new home and open the garage door, if the red light is flashing, do pass go, do not collect $100 dollars, RUN. So where does any dirty dirt that is pulled from the site go? It has to leave the site if it is done right. How many truck/trailer loads will impact Santiago Road for how long? How many loads of clean fill from how far away will have to be trucked in, again impacting an already busy commute? Who pays for the road remediation after those loads damage the road? Who pays for the expansion/upgrading of Santiago Road and its connections to accommodate the increase in traffic from the new community? Will Chapman be your best bet for East West travel for months or longer? How will this impact you, your family and friends? We don't know, because it was never studied and is not in the Report.
Another point, if the Vapor Barrier under the proposed site stops the methane and toxin spread to the East, where does that increased impact go? The methane may be forced up and increase the burn on the site or upgrades may be required. What about the heavier toxins? Will they just slide more rapidly into the aquifers below or run into Santiago Creek to hurry their journey to the Hewes Pit to be PUMPED into the Aquifers? So now, whether you are for against kicking the sleeping dragon with Milan's Development, What's Your Poison? And how large a dose can you tolerate?

Ignorance says leave it lay I suppose. We have survived thus long with the situation. But, how about Orange and Villa Park get with the County and the State and maybe the Feds and remediate the whole swill pot? Excavate and remove the Villa Park Dump, remediate the property to the East and put in an extension of the Santiago Oaks Regional Park along Santiago Creek to Cannon? No, no Bliss here. No money no matter how high your property, gas and myriad other taxes. So at least if the Dump was remediated, any new development residents would be less likely to die in their sleep and the rest of the City and County would have cleaner water in their aquifers in the decades ahead.

Do we give a damn about the future? I hope so.

Charles Leffler
Charles Leffler (LEFFLER)

Response to LEFFLER-1
Comment noted. Please refer to Master Response 7—Applicability of SMARA. Furthermore, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

Response to LEFFLER-2
Comment noted. Please refer to Master Response 7—Applicability of SMARA, Response to SMW-17, and Master Response 9–Soil Import/Export Numbers.

Response to LEFFLER-3
Comment noted. Please see Response to Leffler-1.
December 30, 2018

Mr. Garcia,

As a resident of Orange and a homeowner in Mabury Ranch, I am writing to oppose the proposed Trails at Santiago Creek. The reasons for my opposition are many, but I will focus on just one for now: Traffic.

Everyone knows of the immense traffic jams that occur each weekday morning and evening on Santiago Canyon Road and Cannon Street. Currently there are too many houses in this area for our roads to sufficiently handle. Additional homes will make this worse. And the moderate road improvements proposed with this project will do nothing to alleviate this issue.

Staying on this point, my wife and I were among the thousands of residents who evacuated during the Santiago Hills II fire in the Fall of 2017. The long evacuation delays due to congestion were a sickening reminder of the inadequacy of road infrastructure in our area. The clogged streets were filled with panicked residents. With visibility near zero because of the smoke, this could have led to an even larger disaster than it was. As it turned out, the rapidly moving fire came right behind parts of Mabury Ranch, missing our own neighborhood by just a few blocks. And the point begs to be asked: With roads jammed up, how are firefighters expected to be able to respond in an adequate amount of time?

Let us learn a lesson from the town of Paradise, California, wiped out by wildfires earlier in 2018. Despite fears of a fire once again ruining their town, in 2014 the city narrowed several roads that served as an evacuation route. The decision was made to further business interests in downtown Paradise. Can you imagine? A city backing businesses at the risk of the safety of its own citizenry? It’s very possible the narrowed roads made the evacuation efforts even more deadly for those try to flee the area. With this example in mind, make the right decision and deny the proposed Trails at Santiago Creek, if for no other reason than protecting our residents. A tragedy like the one in Paradise could also result in the loss of many lives in Orange. And think of the many lawsuits against those responsible for making a bad decision concerning the traffic impacts of the proposed Trails at Santiago Creek.

A city’s residents should be able to rely upon its elected officials for basic safety. Please act responsibly on this matter.

Thank you for your time,

Frank Lesinski
6618 East Waterton Avenue
Orange, CA 92867
Frank Lesinski (LESINSKI 1)

Response to LESINSKI 1-1
Comment noted. Please refer to Response to SMW-17.

Response to LESINSKI 1-2
Comment noted. Please refer to Master Response 5—Wildfire Risk. Furthermore, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.
To: Dan & Marilee Dobalian; Carlos Aranda; Michele & Bob Brown; Daniel Riscalla; ICE Bryan Fitzpatrick; David & Kathryn Kietzke; Sonia Valencia; Irma Aranda; Erika Rutledge; Craig Rutledge; Christina Bak; Ron & Marla Green; Arlene & Tom Haefele; Tracy & Dan Lader; Frank & Sandy Flynn; Elyas & Antoniette Balta; Michelle Riscalla; Anthony & Danielle Gressak; Bob & Monique Swenson  

Subject: Hidden Creek Update - City Requesting Your Comments on Proposed Development

Hello all:

I am forwarding this email from Stephanie Lesinski, a resident of Mabury Ranch, who is opposed to the proposed development at the old Sully-Miller property (next to the creek and bordering Santiago and Canyon). The development would impact our neighborhood in various ways. Each of you should read the materials and come to your own conclusions on whether you support this new development. Personally, I am opposed given the extensive traffic issues we are experiencing these days.

If you have any questions, please do not hesitate to contact me or Stephanie directly (preservemabury@gmail.com).

Begin forwarded message:

From: Preserve Mabury <preservemabury@gmail.com>  
Subject: City Requesting Your Comments on Proposed Development  
Date: December 9, 2018 at 3:28:57 PM PST  
To: Annette Feliciani <afeliciani@socal.rr.com>

Annette,

Please forward to the other homeowners in Hidden Creek. We need as many emails/letters as possible!

The City of Orange has given us until December 31st to submit comments regarding the recirculated draft Environmental Impact Report (DEIR) for the proposed Trails at Santiago Creek development. Please email or mail your comments to City of Orange Senior Planner Robert Garcia. His email is: rgarcia@cityoforange.org Letters/emails that were submitted previously will NOT be considered.

VERY IMPORTANT: Be sure to state your position (for or against the project) in the first line of your email/letter. Also include your location in proximity to the proposed project site.

As you may know this project calls for 128 homes on a 40.7-acre parcel south of Santiago Creek on the former Sully-Miller property that borders Mabury Ranch to the North, the Reserve to the East and the Williamsburg/Lexington community to the West. The City of Orange Liaison Committee, of which I am a member made a counter proposal of no more than 47 homes on the proposed 40.7 acre project site. The landowner Milan, rejected that proposal.

Instead the landowner is seeking to rezone this parcel from open space/resource to low-density single-family homes. As Milan's representative has stated, Milan will sell the land to a builder, so there is no guarantee that only 128 homes will be built. **This new zoning would allow 200+ homes** if the builder is granted a new development agreement. What I have learned working in the building industry is builders almost always seek the MAXIMUM density allowed.

Concerns raised previously include:

1) **Restricted Fire Evacuation Routes** – During the mandatory evacuations for the recent Santiago Hills II Fire some Mabury Ranch residents were stuck in a line of cars on Serrano (our only escape route) for 40+ minutes. Residents have expressed concern that another...
large housing development so close to us will hamper our efforts to escape via Santiago Canyon Road from Cannon & Serrano.

2) **Increased Traffic** – The intersection at Santiago Canyon Rd. & Cannon Street is a bottleneck at rush hour. Residents have complained of long lines of cars backed up to the cemetery on Santiago Canyon Rd. Any plan to add merging lanes will have little impact on the thousands of cars that access this intersection at peak traffic periods.

3) **Environmental** – For years this property has been used for mining, rock crushing, dumping, etc. We have no way of knowing what harmful contaminants will become airborne during construction. It will take an estimated 73,000 truck trips to import the hundreds of thousands of cubic yards of "clean" soil and export the silty soil. The landowner's representative has also stated that any new homes may require methane monitors since the adjacent parcel at the corner of Santiago Canyon Road & Cannon Street contains active methane gas vents from the dump that used to exist there.

Currently the East Orange and Orange Park Acres specific plans adopted by the City of Orange call for this land to remain as open space. If you want to preserve this property please send your comments to Sr. City Planner, Robert Garcia at rgarcia@cityoforange.org

I recommend requesting a confirmation that your email was received. For the initial DEIR comment period, many of you cc'd me on your correspondence which is good if you want another way of documenting that your comment was successfully transmitted. You can cc me at: preservemabury@gmail.com

You can also mail your concerns re: **RECIRCULATED DEIR FOR TRAILS AT SANTIAGO CREEK PROJECT** to:

Robert Garcia

City of Orange Planning Department

300 E. Chapman Ave.

Orange, CA 92866

You can read the full recirculated DEIR here:

http://www.cityoforange.org/292/Project-NoticesRelated-Environmental-Doc

**Comments must be received no later than 5:30pm, Monday December 31st.**

Please let your voices be heard! This proposed development will have an irrevocable impact on this property and the surrounding neighborhoods.

Thank you,

Stephanie Lesinski
Stephanie Lesinski (LESINSKI 2)

Response to LESINSKI 2-1
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to LESINSKI 2-2
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Master Response 1—Plan Consistency.

Response to LESINSKI 2-3
Comment noted. Please refer to Master Response 5—Wildfire Risk.

Response to LESINSKI 2-4
Comment noted. Please refer to Response to SMW-17.

Response to LESINSKI 2-5
Comment noted. Please see Master Response 9—Soil Import/Export Numbers.

Response to LESINSKI 2-6
Comment noted. Please refer to Master Response 1—Plan Consistency.
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December 29, 2018

Robert Garcia, Senior Planner
City of Orange
Community Development Department
300 E. Chapman Avenue
Orange, CA 92866

rgarcia@cityoforange.org

Re: Comments regarding the RDEIR for the Proposed Trails at Santiago Creek

Robert,

As a resident of Orange and a Mabury Ranch homeowner I oppose the proposed Trails at Santiago Creek development for the following reasons:

1) **TRAFFIC:**
   The RDEIR underestimates the number of car trips that will be generated. The intersection at Santiago Canyon Rd. & Cannon Street is a bottleneck at rush hour. Mabury Ranch residents have complained of long lines of cars backed up to the cemetery on Santiago Canyon Rd. Any plan to add merging lanes will have little impact on the thousands of cars that access this intersection at peak traffic periods.

2) **RESTRICTED FIRE EVACUATION ROUTES:**
   The proposed development site is in an extreme fire zone. This puts the new homeowners as well as current homeowners at risk. During the mandatory evacuations for the recent Santiago Hills II Fire Mabury Ranch residents were stuck in a line of cars on Serrano (our only escape route) for well over an hour. Another large housing development so close to us will hamper our efforts to escape. Surely our City Council does not want to be libel for loss of lives.

3) **ENVIRONMENTAL CONCERNS:**
   The RDEIR does not contain a reclamation plan. What hazardous materials exist as a result of years of contaminated soil, aggregates and debris being imported or dumped on this site? There will be impacts to importing 877,000 cubic yards of “clean” soil and exporting 500,000 cubic yards of silty soil. The RDEIR fails to adequately analyze the impact of traffic, noise, emissions, air quality, soil disturbance and toxins related to re-grading this site.

4) **OPEN SPACE – WHO MAINTAINS IT?**
   No viable agency has come forward to manage the creek & trails, therefore the landowner Milan’s “promise” of open space and $benefits are in question. The RDEIR identifies 60.5 acres as unmanaged open space, including Santiago Creek. The proposal includes $5,100,000 in funds for landscape and trails, but
there is no indication of how or who will maintain the creek and the remaining open space once the money runs out. This is one reason why the last City Council failed to approve this landowner's previously proposed development, *Río Santiago*. It is a major concern for Mabury Ranch since we are an adjacent property.

5) **ZONED AS OPEN SPACE**
This proposal violates the Orange Park Acres Specific Plan and East Orange Community Plan. Approximately 97 acres of the applicant’s proposed project falls within the boundaries protected by these plans and is currently designated as permanent passive open space. Both the OPA and the East Orange Plans call for phasing out the sand and gravel extraction operations and creating a natural riparian area along Santiago Creek, together with proposed greenbelts, trails, recreation and open space areas.

6) **LANDOWNER UNWILLING TO WORK WITH NEIGHBORHOODS:**
For nearly three years I have served on the City of Orange Liaison Committee meeting with the landowner, Milan’s representative Frank Elfend in an attempt to find a compromise between the neighborhoods and the landowner. Despite the neighborhoods’ attempt to reach a compromise, Milan has refused, instead threatening to continue concrete-crushing if its demands are not met. As a community we should not give in to blackmail tactics.

I ask that the Planning Commission and City Council reject this proposed development and support the communities’ efforts to halt any future dumping or rock-crushing activities on this site.

Thank you,

Stephanie Lesinski
Mabury Ranch
6618 E. Waterton Ave.
Orange, CA 92867
**Stephanie Lesinski (LESINSKI 3)**

*Response to LESINSKI 3-1*
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

*Response to LESINSKI 3-2*
Comment noted. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

*Response to LESINSKI 3-3*
Comment noted. Please refer to Master Response 7—Applicability of SMARA. Please see Master Response 9—Soil Import/Export Numbers. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

*Response to LESINSKI 3-4*
Comment noted. Please see Master Response 6—Stewardship of Open Space.

*Response to LESINSKI 3-5*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to LESINSKI 3-6*
Comment noted. Commenter reiterates opposition for the project. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
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Dear Mr. Garcia,

I am a resident at 11411 Orange Park Blvd. and I would like to comment on the recently submitted DEIR. I have been attending the OPA Town Hall meetings and the number one concern of the residents is not residential development. Their number one concern is violation of the OPA Specific Plan. I ask that you please ensure that this proposed development does not violate the OPA Specific Plan.

Thank you,
Kimiya Leuteritz
Kimiya Leuteritz (LEUTERITZ)

Response to LEUTERITZ-1

Comment noted. Please refer to Master Response 1—Plan Consistency.
Dear Mr. Garcia,

As a property owner in the city of Orange, California, I object to the Recirculated Draft Environmental Impact Report for the Trails at Santiago Creek. It does not meet California statutes and Regulations of the Division of Mine Reclamation. It further does not address traffic realistically. There are many other areas not adequately addressed that other people have pointed out.

Thank you for your consideration.

Kathie Herb Levy
10803 Meads Ave
Orange, CA 92869
714-685-2222 714-453-3176
Kathie and Herb Levy (LEVY)

Response to LEVY-1
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

Response to LEVY-2
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Chris Lovell <cvlovell22@gmail.com>
Sent: Monday, December 31, 2018 6:03 PM
To: Robert Garcia
Subject: Trails at Santiago Creek Project

Dear Mr. Garcia,

Thank you for the opportunity to provide comment on this project. I am OPPOSED to the Trails at Santiago Creek Project, and I urge the Planning Commission and the City Council to deny the proposed project and the DEIR. The project as proposed is not consistent with the General Plan, the OPA Specific Plan or the City's Zoning Ordinance. Although the developer is requesting a General Plan Amendment and a Zone Change, the proposal is wholly inconsistent with the character of the Orange Park Acres area. To change the land use plan to accommodate more residential units in what has always been intended to be a rural area with open space would be setting the wrong precedent for other areas throughout the city, and would cause traffic, noise, water, and air quality impacts among many other additional irreversible impacts that cannot be adequately mitigated.

Please take our serious concerns into consideration and uphold the heritage of the City of Orange by not allowing irresponsible development that this project represents.

Thank you,

Chris Lovell
919 E. Adams Ave.
Orange, CA 92867
Chris Lovell (LOVELL)

Response to LOVELL-1

Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to open space are discussed in RDEIR Section 3.15, Recreation.
Mr. Garcia,

I am writing to vehemently oppose the development, "Trails at Santiago Creek."

East Orange does not need more development. I have lived in this area for 30 years. The traffic has increased to an unacceptable level on Santiago Canyon Blvd. and Chapman Ave. On Chapman Ave., the speed limit has increased from 40 to 45 to 50. The actual speed of traffic exceeds even this. For several hours a day, both on Santiago Canyon Blvd. and Chapman Ave., traffic slows to a crawl in all lanes of Chapman Ave. and in the westbound "curb" lane of Santiago Canyon Blvd., traffic is backed up from Cannon to well past Orange Park Blvd. This stopped and slow-moving traffic impacts the air quality of the region. The proposed development will also affect the ecosystem.

These increased levels of traffic have been exacerbated since the opening of the nearby tollroad and the expansion and resulting increased enrollment at Santiago Canyon College. Adding another housing development in East Orange will only add to these problems.

I am sick and tired of the existing general and specific plans being ignored and amended to increase development and line the pockets of developers, to the detriment of the surrounding communities. These plans were passed for a reason and should mean something. With the city government of Orange, they don't seem to be worth the paper they were originally printed on.

It is past time for the City of Orange to stand up for the citizens of East Orange and not be the enablers of greedy developers.

Barbara Luther
7315 E. Wrangler Circle
Orange, CA 92869
Barbara Luther (LUTHER)

Response to LUTHER-1
Comment noted. Please refer to Response to SMW-17.

Response to LUTHER-2
Comment noted. Please refer to Master Response 1—Plan Consistency.
First email was returned, so I am resending
---------- Forwarded message ----------

From: Laurel Wykes <lwykes62@gmail.com>
Date: Mon, Dec 31, 2018 at 7:42 PM
Subject: Sully-Miller/Milan Project RDEIR – Objection from Marilyn Maldonado, OPA Resid
To: <RGarcia@cityoforange.org>

December 31, 2018

Mr. Robert Garcia
Senior Planner
City of Orange, Community Development, Planning Division
300 E. Chapman Ave.
Orange, CA 92866

Dear Mr. Garcia,
I writing in reference to the Sully-Miller/Milan Project Recirculated Draft Environmental Impact Report (RDEIR). I live at 10422 Orange Park Blvd (Orange Park Acres). My late husband and I purchased our home in 1955 and we raised 3 children. It was the perfect neighborhood/environment to raise children and have horses and other animals. We were a tight knit community that cared! Back then, there were several areas that were similar to Orange Park Acres (Villa Park, Anaheim Hills, Irvine etc) and after many years of development and rezoning of these areas, they have all disappeared. Orange Park Acres is the last neighborhood in this area that embraces the rural and equestrian lifestyle, projecting the land and ecosystem. It is my wish that our home will be enjoyed and kept in our family for many generations to come to enjoy this lifestyle.

After reviewing the RDEIR, I do not feel that thorough and accurate studies have been completed to make any responsible decisions on the future use of this land in question. This RDEIR should be rejected and returned with appropriate actions to be taken before resubmittal is accepted for review.

The proposed project is in direct conflict with the current OPA Plan that has long been planned for open space and park uses.

Additionally, due to the potentially hazardous environmental conditions that exist at this site, it is clear that a reclamation plan must be prepared to determine IF this land can be made suitable for human occupation. The applicant has been unwilling to describe the specific remediation measure needed to protect public health, property and the environment. It is clear that Milan has no regard for public safety, the environment or (short term or long term) that OPA plan established with these specifics in mind.

There are so many other areas that this RDEIR is inadequate:
-Long Term Traffic
- Water Quality/Storm Drainage
- Houses in 100/500 year flood zone
- Loss of Habitat of Arroyo Toad and other species that will impact our ecosystem.

It is our responsibility and our goal to preserve our community and save our environment from developers like Milan that have one objective, Greed! And they will do anything to achieve their financial goals, at any expense.

I appreciate you time and I hope you will hear our Plea!

Thank You,
Marilyn Maldonado
10422 Orange Park Blvd.
Orange, CA 92869
714-532-4774
Lwykes62@gmail.com
Marilyn Maldonado (MALDONADO)

Response to MALDONADO-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Response to FHBP-10.

Response to MALDONADO-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to MALDONADO-3
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

Response to MALDONADO-4
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Impacts related to hydrology and water quality, including floodplain, are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to MALDONADO-5
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: go to ho <jpmarzt@aol.com>
Sent: Monday, December 31, 2018 2:29 PM
To: Robert Garcia
Subject: Strong Opposition to the development "Trails at Santiago Creek"

Dear Senior Planner Robert Garcia,

As a resident on nearby North Hunters Way that sits just off E Santiago Canyon Road, I am strongly opposed to the development "Trails at Santiago Creek" for two reasons that embellish your 4+ reasons. Both are related to the back-up of cars for several hours daily on E Santiago Canyon Road from N Cannon St and for many streets nearby (North Hunters Way is two streets away from the proposed development):

1) Would create more noise and more car exhaust from hundreds more backed up cars;

2) Would take even longer to enter North Hunters Way due to longer lasting back ups (and impolite, undisciplined drivers).

John M
937-212-3141
John Marzt (MARZT)

Response to MARZT-1

Comment noted. Please refer to Response to SMW-17. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.
December 27, 2018

Mr. Robert Garcia  
Senior Planner  
City of Orange  
300 E. Chapman Ave  
Orange, CA 92866

RE: Trails of Santiago Creek

Dear Mr. Garcia,

I am writing in opposition to the subject proposed development “Trails of Santiago Creek”. The proposed development is not in keeping with the master plan for the city of Orange, specifically the Orange Park Acres zoning. The proposed development would create a housing development that is too dense for the infrastructure of the area. In an already congested corridor, traffic problems would be worsened.

Any development that is not in alignment with the current zoning of ANY part of Orange needs to pass at least the minimum test for its appropriateness for the community. In the case of “Trails of Santiago Creek” it is obvious that the proposal does not best suit the community at large. There are a number of issues that are unresolved and to move forward at this time is not prudent, in my opinion.

Thank you,

Mark Massie
Mark Massie (MASSIE)

Response to MASSIE-1
Comment noted. Please refer to Master Response 1—Plan Consistency and Response to SMW-17.
December 28, 2018

Robert Garcia, Senior Planner  
City of Orange  
300 E Chapman Avenue  
Orange, CA 92866

RE: Trails at Santiago Creek Development

Dear Mr. Garcia:

The following letter is sent in opposition to the Santiago Creek Development proposal – a project could allow as many as 200 housing units on land not previously zoned for such use.

As a resident of the City of Orange the past thirty (30) years, I join others in opposition to this development and the detriment it would create. Orange Park Acres is one of the last remaining semi-rural areas in central Orange County and continues to be one of the jewels of our city. Keeping its preservation (original zoning) intact is a key benefit not just for the OPA residents but the City of Orange in general.

East Orange (Chapman Avenue) is congested enough without more development that deteriorates the quality of life in our beautiful city. The current tax rolls should be sufficient to support the City properly.

Sincerely,

Errol Mathieu

cc: File
Errol Mathieu (MATHIEU)

Response to MATHIEU-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to MATHIEU-2
Comment noted. Please refer to Response to SMW-17.
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Robert Garcia

From: Packy McFarland <packomatic@sbcglobal.net>
Sent: Monday, December 31, 2018 9:35 AM
To: Robert Garcia
Subject: Sully Miller proposal "NO"

The city has this area zoned the way it is for a reason. Why does this keep coming up?

The additional traffic congestion alone makes this a bad idea. Please stand up or the people of Orange and vote “NO” on further action for this proposed development.

THANKS-YOU

Packy McFarland
6608 E. Waterton Ave.
Orange CA, 92867
(714) 273-8550
Packy McFarland (MCFARLAND)

Response to MCFARLAND-1
Comment noted. Please refer to Response to SMW-17.
Robert Garcia

From: Marilyn McNulty <mmcultz92861@gmail.com>
Sent: Saturday, December 29, 2018 3:23 PM
To: Robert Garcia
Subject: Dear Mr. Garcia,

My husband and I moved from Villa Park to Orange Park Acres three years ago. We live on Windes Drive near the entrance to Santiago Oaks Regional Park. OPA is a lovely and unique community, very private and almost rural in feel. The risks of living in the fire zone, a risk we experienced during our four-day evacuation for the Canyon II fire, are however very real. From our corner of Windes and Santiago Canyon, any weekday between 4:30 PM and 6:30 PM, it takes exactly 23 minutes to travel approximately one mile to Cannon and Santiago. The traffic backs up almost to Jamboree at that time, comprised largely of people who do not live locally. I am sure you can imagine what the addition of high density housing units on the Sully Miller tract would add to that. Beyond simple inconvenience, the danger of trying to exit our area in the event of a fire could be deadly.

Our annual tax bill is about $25,000. Tenants in high density housing in that area would definitely not be paying taxes in that bracket, but they would be adding greatly to the traffic tie-up on Santiago, particularly in the right turn lane for Cannon.

I respectfully ask that you consider this problem before deciding to pursue this project. Please help us protect our special community.

Sincerely,
Marilyn McNulty
1826 Windes Drive, Orange 92869
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Marilyn McNulty (MCNULTY)

Response to MCNULTY-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Master Response 5—Wildfire Risk.

Response to MCNULTY-2
Comment noted. Please refer to Response to SMW-17.

Response to MCNULTY-3
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.
I adamantly oppose the development called "Trails at Santiago Creek" for several reasons, most significantly as that would negatively impact the immense traffic build up that occurs because of the cannon intersection from 3pm to 6pm every weekday. The addition of more homes to this area, especially in front of an already-busy intersection, would only lead to more accidents and volume. The intersection of Santiago Canyon rd and Cannon causes an immense traffic build up from around 3pm to as late as 6 or 7pm, and in many cases, this traffic prevents my family and I from leaving our housing development to run necessary tasks. As well, the removal of the fruit stand and horse arena both represent an unfortunate loss not only for the current community but for the future children and new residents of this area. The need for fresh and locally grown produce should be no surprise to anyone in California who values a healthy and wholesome lifestyle.

Yours truly,
Alexander Mitchell, Resident of Orange

P.S. Horses need homes too
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**Alexander Mitchell (MITCHELL 1)**

*Response to MITCHELL 1-1*
Comment noted. Please refer to Response to SMW-17.

*Response to MITCHELL 1-2*
Comment noted. Please refer to Response to SMW-17. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
I strongly oppose the development called “Trails of Santiago Creek” for a myriad of reasons. Perhaps the most critical is traffic. Cannon is already a nightmare. Beginning at 7 am and lasting through 8 pm, the back-up at Cannon and Santiago Canyon road is a daily pain that winds several miles, up past my home on N Hunters way, past Newport rd, and all the way back onto Jamboree when it’s rush hour. If you were to add even one home to a situation already this disastrous, it would severely punish those Orange residents already living here as well as those yet to move in.

My next opposition centers on local business. Without driving several miles into the crowded heart of downtown Orange, my family’s only consistent access to fresh, local produce is sold where the “Trails” development is proposed. I have gotten to know the family who works there over the years. No one has more beautiful, home-grown flowers than the mother and daughter who operate a modest living there. And no one has richer, more delicious Purple Cherokee tomatoes or more luscious, scarlet strawberries than Louis who works the produce stand. This family and their stall there are an Orange institution. And as a military family, who has rarely gotten the chance to live anywhere long enough to meet folks like that, they are an invaluable and irreplaceable resource to the surrounding community.

The horse arena beside this fruit stall is another local bedrock, where the ranching, horse-loving community of Orange gathers to celebrate the core of what we are. I cannot tell you how those lovely events with their twinkling lights and dust-soaked cowboy boots, make me feel not just like an observer, but that I belong in this endearing ranch community.

My final rejection of this irresponsible idea lies with our environment. We as Californians, as Orange residents, and quite frankly as members of Earth, are gravely threatened. Fires rage worse and worse, winds get faster and stronger, as pollution throttles the natural resources upon which we breathe. It’s not going away. These problems are getting more and more destructive the more recklessly we build. Cramming several more families into this area is not fair to the Orange residents who already live there, and puts a community that evacuated just one year ago, at much higher risk. We already struggle to keep emissions as low as possible, and to use gas and other resources as rarely as possible. Orange already asks her residents to cut down on their utilities and water, as the region struggles to support our numbers that continue to grow. We cannot sustain the kind of foolish and dangerous strain proposed by the “Trails of Santiago Creek” development. This active resident refuses to support such an ill-conceived and cockamamie project that “Trails of Santiago Creek” seeks to be.

Firmly and Sincerely,
Orange Resident - Elisabeth Mitchell

--
Elisabeth Mitchell
(937) 409-0777
elisabeth.cm.mitchell@gmail.com
Elisabeth Mitchell (MITCHELL 2)

Response to MITCHELL 2-1
Comment noted. Please refer to Response to SMW-17.

Response to MITCHELL 2-2
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Response to MITCHELL 2-3
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Response to MITCHELL 2-4
Comment noted. Please refer to Master Response 5—Wildfire Risk. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9.
Robert Garcia

From: Jacalyn Mitten <moremittens2011@gmail.com>
Sent: Tuesday, December 25, 2018 1:49 PM
To: Robert Garcia
Subject: Trails at Santiago Creek

I am in favor of the development called Trails at Santiago Creek.

Jacalyn Mitten
OPA Resident since 1994
Jacalyn Mitten (MITTEN)

Response to MITTEN-1
Comment noted. This comment supports the development of the project and no further response is necessary.
DEBORAH M. MONGAN
984 NORTH RIDGELINE ROAD
ORANGE, CA 92869-1818

VIA EMAIL: rgarcia@cityoforange.org
HARD COPY VIA FIRST CLASS MAIL

December 31, 2018

COMMUNITY DEVELOPMENT
RECEIVED
JAN 07 2019
CITY OF ORANGE

Robert Garcia, Senior Planner
City of Orange
Community Development Department,
Planning Division
300 E. Chapman Avenue
Orange, CA 92866

RE: Comments – Recirculated DEIR “Trails at Santiago Creek”

Dear Mr. Garcia:

I am writing in response to the Recirculated Draft EIR, dated November 14, 2018, regarding the development proposed at the former Sully Miller property along Santiago Canyon Road in East Orange, which I have reviewed. I previously submitted comments to the Draft EIR, in a letter dated April 9, 2018. As my previous comments are still substantive and unameliorated, I am attaching and incorporating my previous letter and the comments and concerns therein.

I have been a resident of Orange Park Acres for 17 years. We moved here specifically because I had horses, and subsequently my kids became involved in 4-H. Both interests are fervently protected by this unique community. I attended the March 16, 2017 and March 21, 2018 community meetings regarding the above-referenced project, as well as the October 17, 2018 OPA Planning Committee meeting which the Owner/developer neglected to attend.

At the outset, I am again frustrated by a quandary: How could a Pre-Development Agreement regarding this property have been approved in the face of overwhelming community opposition and basic common sense? The affected communities’ input is continually ignored. Governing documents such as the East Orange General Plan and the OPA Specific Plan are being sidestepped. The owner/developer’s “improved” alternative of 128 homes is still excessive.

The East Orange General Plan and the OPA Specific Plan Cannot be Ignored

The owner/developer now proposes 128 homes, among multiple smoke-and-mirrors alternative scenarios. The RDEIR variously references about 40-50 acres of developable land south of Santiago Creek. The way I read that, that means 40-50 houses -- that’s it, based upon the applicable One Acre Minimum standards set for the in the East Orange General Plan and the OPA Specific Plan. The referenced 62.7 acres set aside for “open space” is developer-speak for land that would be undevelopable anyway. NO PLAN SHOULD BE APPROVED THAT DOES NOT RESPECT THE ONE ACRE MINIMUM LOT SIZE REQUIREMENT. That should be the starting point for any discussion regarding cluster developments, not the highest possible density option. Even 128 homes on the buildable portions of this property would not be “compatible with surrounding neighborhoods.”
Backfill and Stockpile Operations Should Never Have Been Allowed

Alternative F is yet another “Scorch and Burn” threat. The owner/developer acts like it is doing the community a favor when it “voluntarily” agreed to suspend backfill and stockpile operations. The owner/developer again sets up the mess it created as the “No Project/No Development” alternative. This use of the property is beyond the scope and permits of the original mining operations at the old Sully Miller site and should never have been allowed. No matter what happens at this site, the owner/developer should be required to remediate this ecological disaster, and whether or not this owner/developer is ever allowed to do anything else with the property. If it was really acting in good faith, the owner/developer should be spending the $4M it proposes in the RDEIR on remediation at the site NOW.

Development at this Location is Still Full of Issues

The huge potential issues and environmental impacts of this proposed development remain: increased traffic, flood danger, methane from the adjacent landfill, seismic issues, fire danger, permanent loss of open space, damage and loss of critical habitat. These issues remain, whether we are talking north or south of the creek, or whatever is the density du jour. The RDEIR seems to throw a lot of money at the problems in the hope that they will now go away. However, knowing developers, these are empty and unenforceable solutions. Once this property changes hands, as it will, then who pays? And are the proposed amounts even enough? For example, the RDEIR proposes $1M for widening and restriping of Santiago Canyon Road, as a traffic mitigation. That wouldn’t solve the EXISTING traffic problem we have TODAY! Traffic is already bad. The proposed “solution” might help the status quo, but any additional development will simply compound an already untenable situation.

Sometimes there are locations that just shouldn’t be developed. We need to cherish those locations, not maximize their destruction. The owner/developer has shown an inability and unwillingness to work with the community to maintain the bare minimum protections that development of this location would require. This project remains poorly conceived and totally wrong for the community and the City. Indeed, the City will be left with the consequences and reverberations of this project, long after the owner/developer has cashed out and left town. The owner/developer continues to trivialize insurmountable issues. I leave the technical analysis to the professionals who will hopefully go over every detail. But, I still feel strongly that the governing planning documents and the community’s concerns must be respected. Again, I appreciate this opportunity to comment on the “Trails at Santiago Creek” Recirculated Draft EIR. Thank you for your time and consideration.

Attachment.

Very truly yours,

Deborah M. Mongan
VIA EMAIL: rgarcia@cityoforange.org
HARD COPY VIA FIRST CLASS MAIL

Robert Garcia, Senior Planner
City of Orange
Community Development Department,
Planning Division
300 E. Chapman Avenue
Orange, CA 92866

RE: Comments – “Trails at Santiago Creek” Draft EIR

Dear Mr. Garcia:

I am writing in response to the Draft EIR regarding the development proposed at the former Sully Miller property along Santiago Canyon Road in East Orange. My family has lived in Orange Park Acres for 16 years. We are very involved in this unique community – we have horses and my kids are active in 4-H. I attended the March 16, 2017 and March 21, 2018 community meetings regarding the above-referenced project. At the outset, I am frustrated by a quandary: How are we, the community, expected to meaningfully evaluate and comment upon what seems to be proposed in the DEIR when the “project” is so vague? How can the community’s input possibly be meaningful at this juncture, when there isn’t even a tentative tract map? Even the “best case scenario” proposed by the owner/developer has frightening implications. The DEIR is so flawed it is a joke – it is, quite simply, an insult to the letter and intent of the CEQA process. With that huge caveat, I still have many comments and concerns. Here are some of the big ones:

1. Respect the East Orange General Plan and the OPA Specific Plan.

This is an equestrian residential community with a unique character. A lot of thought, time and effort has been dedicated by a great number of people to protecting this character. Any development that does not respect this vision would necessarily be a negative alteration of this unique environment. For example, any development that does not maintain one acre minimum lots, or seek to encroach upon what should be maintained as open space, would violate both the letter and spirit of the community’s and the City’s vision. Many wiser minds than I are far more attuned to the legal implications of the land use issues involved. But, if from the outset the project requires a General Plan amendment and a zoning change, it tells me it is not right for our community.
2. Listen to the Community.

People in OPA care deeply about their community. They have lots of wisdom and many constructive suggestions that can be put to good use during the DEIR process. An infill developer out to maximize profits simply cannot have the best interests of this community, or our City, in mind. Of the five map alternatives presented at the scoping meeting last year, most versions were simply “rearranging deck chairs.” Map E demonstrated the only thoughtful alternative. At least some real consideration was put into the rearrangement of uses in Map E. A year later, the owner/developer has seemingly totally ignored this input from the community. If this is any indication of the owner/developer’s willingness to work with the community, I am already disappointed.

3. Any Development of this Location is Fraught with Issues.

I quickly run out of fingers when I start counting the potential issues and environmental impacts here: increased traffic, flood danger, methane from the adjacent landfill, seismic issues, fire danger, permanent loss of open space, damage and loss of critical riparian habitat, and further damage to community good will. Our community is still fractured -- suffering from “development PTSD” -- from the last time this owner/developer tried to make a quick buck in East Orange. This owner/developer brings a fair amount of baggage along with its poor track record of insensitivity. It is hard to begin this process all over again with any sense of hope or encouragement that this will turn into a “win-win” for all involved. There is a reason that development was tried and failed here twice before. Our remaining open space islands, or infill development opportunities, remain because they are full of insurmountable issues.

4. The Current Degraded Condition of the Property is No Justification for a Poorly Conceived Project with Monumental Environmental Impacts.

We are all sick of the massive “dirt pile” currently on the property. Mind you, this nuisance and eyesore was created by the property owners who are now asking the City for development concessions. This mess which embodies the current condition of the former Sully Miller property, is symbolic of the mountain of problems any proposed development of this site brings. Fixing the current conditions cannot be a justification for hasty or ill-conceived “improvements” wrought by development. I hope this was not also the owner/developer’s intent, to set this current mess up as the “No Project/No Development” alternative. There needs to be a proper reclamation plan for the old gravel pit, which is absent from this DEIR. More care and attention must be given to remediation and maintenance of the existing open space NOW, whether or not this owner/developer is ever allowed to do anything else with the property.
Mr. Robert Garcia

RE: Comments – “Trails at Santiago Creek” Draft EIR
April 9, 2018

5. Traffic Issues Alone Should Prevent Any Consideration of this Poorly Conceived Project.

Often several times a day, I have to wade across Santiago Canyon Road during the commute hour, as I drive from Amapola Avenue to over by Lolita Street and back again, for my kids’ riding lessons or 4-H chores. A trip which should take two minutes can take 20. I routinely see traffic violations (driving on the shoulder, illegal U-turns). There is a solid river of self-absorbed commuters who pass through our neighborhood. It is even worse when there is an accident and enterprising commuters turn to Ways to find their way around. I can always tell, as suddenly a stream of cars going way too fast start flowing down Ridgeline, oblivious to the houses with blind driveways or small kids or pets. I can only imagine the nightmare the traffic will be while this project is under construction . . . or once it is fully built out. 240 units? They are kidding, right? My nightmare turned to true terror once I heard about all the dirt that would have to be moved in or out, and the number of truck trips that would entail. What was a simple trip to visit my mother in Villa Park would be tortuous.

This is a perfect example of an infill development opportunity that is poorly conceived and totally wrong for the community and City. The owner/developer has ignored or glossed over so many of the insurmountable issues that, at a bare minimum, the DEIR should be revised. I’m not a highly paid consultant or professional city planner, and even I can see the significant flaws. As such, I appreciate this opportunity to comment on the “Trails at Santiago Creek” Draft EIR and I thank you for your time and consideration.

Very truly yours,

Deborah M. Mongan
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Deborah Mongan (MONGAN 1)

Response to MONGAN 1-1
Comment noted. Commenter states that her previous comments were not addressed. Please refer to Response to FHBP-2.

Response to MONGAN 1-2
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. For a discussion of the project’s consistency with the East Orange General Plan and the Orange Park Acres Plan, please see Master Response 1—Plan Consistency. No further response is necessary, as the remaining comments do not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to MONGAN 1-3
Please refer to Master Response 1—Plan Consistency. Please refer to Master Response 3—Analysis of Alternatives. The remaining comments do not warrant a response, as they are opinions unrelated to the environmental analysis in the EIR.

Response to MONGAN 1-4
Comment noted. Please refer to Master Response 1—Plan Consistency and Master Response 10—General Comments on Project, General Opposition. The remaining comments do not warrant a response, as they are opinions unrelated to the environmental analysis in the EIR.

Response to MONGAN 1-5
Comment noted. Please refer to Master Response 1—Plan Consistency for a discussion of project consistency with the East Orange General Plan and the Orange Park Acres Plan.

The commenter states general concern for environmental impacts related to traffic, flooding, methane, seismic issues, fire, open space, and habitat. These concerns are noted and will be provided to City decision-makers. Traffic impacts are discussed in RDEIR Section 3.16, Transportation and Traffic. As noted in Section 3.16, impacts would be significant and unavoidable, requiring a statement of overriding considerations by the City. Flooding is discussed in RDEIR Section 3.9, Hydrology and Water Quality. As discussed, there would be no potential for flooding to occur. Please also refer to Master Response 4—Dam Safety and Risk of Failure. For methane, please refer to Master Response 8—Site Environmental Conditions. For open space concerns, please see Master Response 6—Stewardship of Open Space. Fire risks are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials. As discussed, with mitigation requiring a Fuel Modification Plan, fire risks would be less than significant. Biological Resources issues are addressed in RDEIR Section 3.4, Biological Resources. As discussed, all biological impacts would be less than significant with mitigation.

The commenter requests a reclamation plan to be prepared. Please see Master Response 7—Applicability of SMARA and Master Response 8—Site Environmental Conditions.
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December 31, 2018

Mr. Robert Garcia  
Senior Planner  
City of Orange  
Community Development Department, Planning Division  
300 E Chapman Avenue  
Orange, Ca 92866  

Sent via email: rgarcia@cityoforange.org  

Subject: The Trails at Santiago Creek RDEIR Comments  

Dear Mr. Garcia:  

The proposed RDEIR for the Trails at Santiago Creek is a very complex document for a very complex site. Rather than dwell on dozens of issues in the minutia, I would just like to highlight one key element that should be reviewed further.  

The RDEIR is inconsistent with the Orange Park Acres Specific Plan in multiple ways but, most importantly, in regards to density. The OPA Specific Plan allows for a mix of one-acre minimum residential properties and cluster developments. The cluster development option would offer the developer the opportunity for the greatest number of buildable lots. These lots could also be each less than one acre in size provided that,  

- there are community stables designed into the cluster and,  
- the net number of buildable units in the site (inclusive of infrastructure and stables) nets one home per acre maximum.  

In reviewing the portion of the lot where homes are proposed to be developed, that region totals 40 acres. It has two different community plans presiding over different regions of the 40 acres. The western portion of the 40 acres is governed by the East Orange General Plan. The eastern portion is included in the purview of the Orange Park Acres Specific Plan. By my calculations, this could yield the developer the maximum number of homes of,  

- 44 in the East Orange General Plan portion of the site. This assumes ~40% loss of buildable lots due to infrastructure and setbacks (14 acres of R-1-8).  
- 26 in the Orange Park Acres Specific Plan portion of the site. Note, there is no loss of number of lots here due to infrastructure or stables because of the use of the cluster concept.
The remainder of the acreage in the 109 acre lot is within Santiago Creek or north of the creek and proposed as open space. This could yield the developer a maximum of 70 buildable lots. If the developer decides not to implement the cluster concept in the Orange Park Acres Specific Plan, the number of homes in that portion of the site would reduce from 26 to approximately 17 yielding a total buildable project of 61 homes. Both of these options are significantly less than the proposed 128 home development in the existing RDEIR.

Sincerely,

Ryan Mongan

984 N Ridgeline Rd
Orange, CA 92869
Ryan Mongan (MONGAN 2)

*Response to MONGAN 2-1*

Comment noted. Please refer to Master Response 1—Plan Consistency.
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Kathryn Monteleone  
305 S. Call Baja  
Orange, CA 92869  

December 21, 2018

City of Orange  
300 E. Chapman Ave  
Orange, CA 92866  
Attn: Robert Garcia, Senior Planner  

Subject: Trails at Santiago Creek  

Mr. Garcia,  

As a current resident of the city of Orange, I oppose the Trails at Santiago Creek development. This proposed development will severely impact the natural landscape that is the main reason most East Orange and OPA residents live here. The current traffic situation is already at capacity and with the additional proposed residences it will become total gridlock.  

In addition, we have been in water conservation status for the last three years; where will the water come from to support the new residences?  

The traffic, loss of natural open space and water conservation are the obvious reasons why I oppose the Trails at Santiago Creek development.  

Regards,  

[Signature]  

Kathryn Monteleone
Kathryn Monteleone (MONTELEONE)

Response to MONTELEONE-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to MONTELEONE-2
Comment noted. Please refer to Response to SMW-17.

Response to MONTELEONE-3
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to MONTELEONE-4
Comment noted. Please refer to Response to SMW-17 and Master Response 6—Stewardship of Open Space. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.
Robert Garcia

From: Debbie Moore <dmoore714@aol.com>
Sent: Thursday, December 27, 2018 3:29 PM
To: Robert Garcia
Subject: Please stop Trails at Santiago Creek

Dear Robert, please stop the development of Trails at Santiago Creek. To change the zoning and put 200 homes in here is crazy and is not right or fair!! Thanks, Debbie and Steve Moore

Sent from my iPhone
Debbie Moore (MOORE 1)

Response to MOORE 1-1

Comment noted. Please refer to Master Response 1—Plan Consistency.
City of Orange, Robt. Garcia

As a 45 year resident of Orange Park Acres I want to and do oppose the Trails at Santiago Creek Development.

This area is in traffic gridlock every morning and evening with stand more cars from the proposed 200 plus units. The council needs to the current zoning as it is a tell Milan RE1X It's go find another location.

Respectfully,

Judy Moore
Equestrian Way
Orange
Judy Moore (MOORE 2)

Response to MOORE 2-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to MOORE 2-2
Comment noted. Please refer to Response to SMW-17.
Dear Mr. Garcia,

I wanted to submit my concerns with regard to THE TRAILS at Santiago Creek Project as per your recent letter to the nearby residents. As you may know, the greatest concern my neighbors and I have at this time is the open gravel pit that sits on the Sully Miller Property in East Orange.

The gravel pit creates plumes of dust and dirt every time the Santa Ana winds blow and the air near the gravel pit is terrible. It is even worse when the operation is up and running - as it will be again next week. This gravel pit is surrounded by homes on all sides now and has been a terrible problem in this community for the last 20 years (since it reopened in 1998).

Both my children had asthma and nasal problems for the last 20 years and I don’t think it’s unrelated to these piles of dirt and gravel and crushed rock that comes from construction sites and demolition sites around the county. The EPA has cited the gravel pit on two occasions due to the impact of the air pollution adjacent to the site. It is a health hazard. God only knows what is in those piles out there in the pit.

I welcome any of you to spend a day here or drop by my home for even 15 minutes when the Santa Ana winds blow. It is miserable. Let's take the issue of parks and open space off the table for a moment - which is also a pressing issue in this part of Orange. Let’s talk about the PUBLIC HEALTH issues caused by the dump site. Both my children had 16 years of respiratory issues - asthma, nasal issues, pneumonia, etc. - caused primarily by the air quality adjacent to this site. Their issues have all disappeared after they moved out and left the area.

This is why home prices near gravel pits are so much lower. There are documented serious health risks to those that live within 2 miles of the gravel pits. Please review just a few of the articles on this subject below.

The Environmental Impacts of Aggregate Extraction:


https://www.torontoenvironment.org/gravel/impacts


https://www.countynewsonline.ca/opinion-living-near-a-gravel-pit-2/
There are HUNDREDS more articles on this subject from every corner in the world. Isn’t this reason enough to negotiate a way to remove this gravel pit from the heart of OPA? It is killing us all - literally!

The quarry operation is now, and has been for years, an immediate danger to health, property, or life to those in this neighborhood. I can immediately document and point to the impact this operation has had with regard to:

NOISE - every day five days a week for 19 years the quarry operation would wake us up with the cacophony of machinery, grinding, and horns at 7am. This was a clear infringement on my right to quiet enjoyment of my land. This operation clearly threatens the comfort, convenience, and welfare of this community. I do not want to ever have to go through this again.

DUST - my home is covered - inside and out - with a fine coat of light gray dust and grime. It is everywhere. It covers my solar panels and cost me money on my electric bill (output from the panels we have was cut 50% since JMI - the land owner prior to Milan - began their operations). The dust has caused my family to be plagued by respiratory problems and viruses that are well documented in our medical records - 16 years of allergies, asthma, pneumonia, nasal congestion, and coughs (all of which subside once we are away from our home and the quarry operations).

DAMAGE TO PROPERTY - in the 21 years we have lived here, dump trucks carrying gravel have been responsible for three broken windshields as our cars - following them east on Santiago Canyon - encounter all manner of falling and sprayed rock and gravel from the road and the traffic there. This situation is an obstruction to our main community highway and creates a condition that makes travel unsafe and highly disagreeable - threatening the public convenience. Our houses are covered in soot forcing us to clean and/or repaint our homes many times more often than those neighbors we know who do not live adjacent to the Rio Santiago property.

ENVIRONMENTAL IMPACT - nobody monitors what is dumped on this property and what poisons or toxins may be seeping into our ground water and the river that runs directly through this property. From all reports the rock being crushed is from road and construction demolition sites and contains many harmful agents. The EPA confirmed this when they visited the site 3 times in 2014.

SAFETY - Beyond the obvious issues having to do the daily traffic on the roads of Santiago Canyon and the damage and threat the rocks and gravel on the road can do, I need not remind you that these trucks are dangerous to the citizens traveling these roads themselves - 10 years ago a bicyclist was tragically killed coming out of the quarry, as just one example. This operation does not belong in a heavily populated residential community and poses a threat to the safety of everyone surrounding it.

DAMAGE TO LAND VALUES - living adjacent to this filthy, noisy, unhealthful, eyesore have definitely impacted the property value of our home by hundreds of thousands of dollars. Who would choose to live next to his dump?

Many residents in the immediate area have significant concerns regarding the health of living downwind of a concrete crushing facility. Many neighbors have already complained to the City and each other about respiratory problems experienced by their children for the last 20 years. The dust blows onto people’s homes and in their windows. If it is in fact causing the respiratory problems and headaches that people complain of, or even if it only
creates a fear that ordinary health ailments are actually caused by environmental pollution coming from the gravel yard.

In addition, the dust coats the houses and vehicles. My house has solar panels that must be washed at least once per month. They are visibly coated with dust which reduces their efficiency in generating electricity. This is a trespass which causes actual monetary harm. Many residents in the area have solar panels. The dust is also a nuisance, as it sticks to windows, sills, doorknobs, patio furniture, and everything else outside.

The recent wind storm highlighted the problem as enormous clouds of dust were blown off the gravel mountains, across the neighboring roads, and into the adjacent houses. This is above and beyond zoning issues - this is a health concern to everyone near this dump site.

There is no compelling reason, or any reason at all, why this commercial operation like the operation on this property must be located where it currently is, surrounded by housing and elementary schools, rather than somewhere more remote or situated among other similar industrial uses.

Finally, the operations constitute a public nuisance that should be abated immediately regardless of zoning or prior use. This site needs to be permanently closed. Developing this area into a park and residential community is the most logical way to accomplish this.

Please help us.

All My Best,

Mark Moore

6507 Sycamore Glen Drive
Orange Park Acres, CA 92869

Phone: +1.310.266.2283
**Mark Moore (MOORE 3)**

*Response to MOORE 3-1*
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

*Response to MOORE 3-2*
Comment noted. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

*Response to MOORE 3-3*
Comment noted. Impacts related to air quality, including dust, are discussed in RDEIR Section 3.3, Air Quality.

*Response to MOORE 3-4*
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

*Response to MOORE 3-5*
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

*Response to MOORE 3-6*
Comment noted. Please refer to Response to SMW-17. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

*Response to MOORE 3-7*
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

*Response to MOORE 3-8*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

*Response to MOORE 3-9*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

*Response to MOORE 3-10*
This comment supports the development of the project. No further response is necessary.
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City of Orange Senior Planner Robert Garcia,

We Mike and Linda Moore @ 1936 N. Canyon Park Circle in Mabury Ranch are in favor of the Environmental Impact Report (RDEIR) for the proposed Trails at Santiago Creek development. We trust that you will hold the developer of the land to the proposal.

Sincerely,

Mike Moore
Michael Moore (MOORE 4)

Response to MOORE 4-1
Comment noted. This comment supports the development of the project and no further response is necessary.
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Robert Garcia

From: Sharon <swmule@aol.com>
Sent: Thursday, December 27, 2018 11:45 PM
To: Robert Garcia
Subject: Trails of Santiago Creek Project

Dear Mr. Garcia,

I do not support the Trails of Santiago Creek project.

I have been a resident of Orange Park Acres for about 40 years. The amount of energy that we have had to expend to protect and safeguard our community against our own city officials has been daunting. No sooner is one battle fought than another one waged. All the while, the City has been culpable for irresponsibly putting the interest of investors over the best interests of the citizens who pay taxes and have to live with the City's damaging actions. It took a State Supreme Court decision to prove that. Now we are faced with another tricky onslaught from the same land investor who lost in that State Supreme Court decision.

Milan's proposal to build on the Sully-Miller site is ill-conceived on the grounds of traffic and safety. Compounding the safety issue is the potential taxpayer exposure to retribution costs if unsuspecting new homeowners suffer consequences due to improper mitigation of the issues that have been disclosed by the RDEIR and legal firm for Orange Park Acres. The RDEIR is defective on many levels.

Considering how badly the City has handled the land usage of that site in the face of SMARA, I have little confidence that good judgment will be used in regard to any of those issues. But as large as that problem looms, the idea that the City would consider fracturing the OPA Specific Plan to satisfy a proven bad player and bail land speculators out of their weak chess piece is especially hard to comprehend. Prior to the OPA Specific Plan being adopted by the City in 1973, the community was being carved up. Disband the OPA Specific Plan and it will be carved up again. If that protection to OPA is disbanded our community will one day cease to exist just as the equestrian communities of Yorba Linda and Villa Park were dissipated.

The question the City needs to ask is, "who do you serve?". I hope this time the City will choose to stand behind the residents by denying the investor zoning changes that would harm OPA, open space, and create serious safety concerns, taxpayer liability, and traffic congestion. The RDEIR is defective on too many levels and simply cannot be certified.

Please pass my concerns on to the City Council.

Sincerely,
Sharon W. Mulé
7401 E Saddlehill Trail
Sharon Mulé (MULÉ 1)

Response to MULÉ 1-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to MULÉ 1-2
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Response to SMW-17.

Response to MULÉ 1-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to MULÉ 1-4
Comment noted. Please see Master Response 6—Stewardship of Open Space. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
Dear Mr. Garcia,

Please find attached the letters/emails that have been previously sent for which no comments were received regarding the February DEIR. CEQA requires responses to comments that are submitted. Some of these issues have been fixed but most have not. Please include these comments in the record and provide responses.

Thank you,
Sharon Mulé
7401 E Saddlehill Trail
Orange
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Sharon Mulé (MULÉ 2)

Response to MULÉ 2-1

Comment noted. Commenter states that previous comments from the attached agency and individual letters were not addressed. Please refer to Response to FHBP-2.
Robert Garcia

From: Shirley Mullen <mallqueenshirley@yahoo.com>
Sent: Monday, December 31, 2018 8:30 AM
To: Robert Garcia
Subject: Development

I am very much against this project. I have lived at Taft & Cannon area 44 years. All of the concerns stated are my concerns also. The traffic is awful coming from all directions, I can’t get out my street Yurok to Taft. Too many people in this area with everyone also cutting through these streets. Shirley Mullen

Sent from my iPhone
Shirley Mullen (MULLEN)

Response to MULLEN-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Response to SMW-17.
Mr Garcia -
I am writing you to let you know that I **OPPOSE** the development called “**Trails at Santiago Creek**” because of the following:

- It fails to meet the requirements of the California Environmental Quality Act (CEQA).
- It conflicts with the fundamental policies of the Orange General Plan and the OPA Plan.
- It fails to address and analyze the projects potential to create significant hazard to the public and environment.
- It will require construction activities upward of 275,400 truck trips for grading.
- There is no way to gauge the impacts that would be added as there is no reclamation plan included.
- The RDEIR is riddles with error such that you cannot evaluate the real impacts to public health and safety, traffic, air quality, noise hydrology, hazards or climate change.
- Approval of this project would violate state planning and zoning laws.

Again, as a resident of Orange (specifically OPA) I strongly **OPPOSE** this project. We **DO NOT NEED** anymore traffic on Santiago.

Thank you for consideration,

Jennifer Naughton
1656 N. Hunters Way
Orange, CA 92869
Jennifer Naughton (NAUGHTON)

Response to NAUGHTON-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to NAUGHTON-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to NAUGHTON-3
Comment noted. Impacts related to hazards are addressed in RDEIR Section 3.8, Hazards and Hazardous Materials.

Response to NAUGHTON-4
Comment noted. Please see Master Response 9—Soil Import/Export Numbers.

Response to NAUGHTON-5
Please refer to Master Response 7—Applicability of SMARA.

Response to NAUGHTON-6
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

Response to NAUGHTON-7
Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to land use planning and zoning are discussed in RDEIR Section 3.10, Land Use and Planning.
Robert Garcia

From: bartz@aol.com
Sent: Friday, December 28, 2018 10:10 AM
To: Robert Garcia
Subject: Trails at Santiago Creek

I am very much against the proposed development and zone change to our general and specific plan. There are many reasons this plan should not go through. It would worsen traffic, threaten open space and the DEIR fails to adequately analyze and mitigate the project's impact on hydrology, water quality, storm drainage and flooding impacts. I believe this zone change should be denied.

Sincerely,

Cynthia Nelson
11072 Meads Ave.
Orange, CA 92869
bartz@aol.com
**Cynthia Nelson (NELSON)**

*Response to NELSON-1*

Comment noted. Please refer to Response to SMW-17, and Master Response 1—Plan Consistency. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.
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Robert Garcia

From: NDQ <exryu69@yahoo.com>
Sent: Thursday, December 20, 2018 7:18 PM
To: Robert Garcia
Cc: stopsullymiller@gmail.com
Subject: I oppose the "Trail at Santiago Creek"

Mr. Robert Garcia, Senior Planner, City of Orange

Sir:

My name is Rosemary Nguyen. My home is on Santiago Canyon Road with enough traffic. I am opposed to any zone change that will make traffic worse.

Respectfully

RN
7602 E Santiago Canyon Road
Orange, CA

Sent from Yahoo Mail for iPhone
Rosemary Nguyen (NGUYEN)

Response to NGUYEN-1

Comment noted. Please refer to Response to SMW-17.
Dear Mr. Garcia,

I strongly oppose the development of the “Trails at Santiago Creek”. This development proposed at 200 plus units will have a negative effect on traffic and will ruin this historic semi-rural area. This area is NOT zoned for houses and the Milan REI X should be stopped. Building these homes will worsen traffic & compromise safety.

Don’t allow the ball out of a few investors at the detriment of the citizens of Orange happen.

Thank you.

George Nicholas
7014 La Cumbre Dr.
Orange Ca. 92869
714-335-5652
George Nicholas (NICHOLAS)

Response to NICHOLAS-1
Comment noted. Please refer to Response to SMW-17 and Master Response 1—Plan Consistency.
Robert Garcia

From: Tanya Orth <tanyaorth@sbcglobal.net>
Sent: Sunday, December 30, 2018 4:29 PM
To: Robert Garcia
Subject: Against - Trails at Santiago Creek Development

Hello,

The development of this property will force us to move. The traffic is already horrible on Cannon. Developing the property will only make things worse. Plus the fact that land used to be a dump. Who knows what this means to airborne contamination...

Thank you,
Tanya Orth
Tanya Orth (ORTH)

Response to ORTH-1

Comment noted. Please refer to Response to SMW-17. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.
Robert Garcia

From: Sherry Panttaja <sherry@opaequestrian.com>
Sent: Thursday, December 27, 2018 8:57 AM
To: Robert Garcia
Subject: Trails at Santiago Creek

Robert;

This letter is to show my opposition to the current planned development or rezoning on the property once owned by Sully Miller which is now being called "Trails at Santiago Creek".

I oppose an homes being built on that land that would impact the OPA Specific Plan. I am a third generation family here in Orange Park Acres who has resided here since 1967 and now raise my children here as well. We live here because of the rural living and the large properties allowing for an equestrian lifestyle. My business is in the education and continuing families choosing a lifestyle which involves horses and animals.

I have watched all the surrounding communities push horses out and make it impossible to own and keep a horse on your property. Using Villa Park, Santa Ana and Yorba Linda as examples of how more and more homes are built and properties no longer are able to home large animals. They have horse trails that lead to nowhere and residents who oppose the equestrian lifestyle. With that said I will continue my fight to keep OPA and equestrian community.

My concerns other then homes ranging in smaller sizes which don't allow for horses is also that actual land being used to possibly develop on.

1. Is that land where Sully Miller once operated as a mine even safe to build upon?
2. What efforts will be made to reclaim and restore the land before homes would be built?
3. Should homes be built on unsteady land and homes start to have issues like in Santiago Hills will that City be liable and taxpayers have to help?
4. That natural creek and flood plain is something to have to be analyzed long before any rezoning can be looked at?
5. Why allow rezoning before proper studies are done on the property in question?
6. Adding any additional traffic to Santiago Canyon Road is a major concern since I am trapped and can not get out of my area during certain hours of the day?
7. Milan is offering to donate money and land for open space but who is going to manage it? From what I understand the City is unable to handle taking that on.
8. How will the OPA Specific Plan be enforced with this proposal?

I would like all these questions answered and addressed before rezoning is even looked at being an option.

After looking at the RDEIR I have found several errors and omissions that will be a liability in the future for both the City and County of Orange which in turn will fall on the citizens of Orange.

Once again, I OPPOSE Trails at Santiago Creek.

I look forward to hearing these addressed at the City Planning Meeting.

Sincerely,
Sherry Hart Panttaja
OPA Resident for 51 years

11101 Orange Park Blvd.
Orange, CA 92869
(714) 343-4965
**Sherry Panttaja (PANTTAJA 1)**

*Response to PANTTAJA 1-1*
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Master Response 1—Plan Consistency.

*Response to PANTTAJA 1-2*
Please refer to Master Response 7—Applicability of SMARA.

*Response to PANTTAJA 1-3*
Comment noted. Please refer to Appendix I, Geotechnical Report. Furthermore, see RDEIR Section 3.6, Geology and Soils.

*Response to PANTTAJA 1-4*
Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

*Response to PANTTAJA 1-5*
Comment noted. Please refer to Response to SMW-17.

*Response to PANTTAJA 1-6*
Comment noted. Please see Master Response 6—Stewardship of Open Space

*Response to PANTTAJA 1-7*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to PANTTAJA 1-8*
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
This email is to inform the Senior Planner Robert Garcia to my Opposition of the proposed plan by Milan.

My opposition is to changing the zoning of a greenbelt/open space area within Orange.

The increased traffic is a major concern living in the area directly near the proposed project and having to deal with the congestion due to the density of homes that already exists in the surrounding area.

Another major concern is the land in which the homes are to built on. With the knowledge that I have of the use of said land there needs to be a complete study done as to if the land is even buildable. The existing RDEIR is lacking all the information regarding the land and its history and how it will effect the future community they want to build on.

Should the City allow this plan they are saying the study was complete which it is not. Opening the City to litigation should problems occur in the future with the development. Which effects us citizens in the end with taxes.

Once again. I oppose the proposed change in Zoning!

Tim Panttaja
11101 Orange Park Blvd
Orange, CA 92869
**Tim Panttaja (PANTTAJA 2)**

*Response to PANTTAJA 2-1*
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

*Response to PANTTAJA 2-2*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to PANTTAJA 2-3*
Comment noted. Please refer to Appendix I, Geotechnical Report. Furthermore, see RDEIR Section 3.6, Geology and Soils.

*Response to PANTTAJA 2-4*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
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I am writing this to state my complete opposition to yet ANOTHER destructive development in Orange, called The Trails at Santiago Creek. This horrible plan is not only detrimental to the quality of life for local residents, it will throw even more traffic into an area that is already struggling to accommodate the influx of traffic from the new development.

When does it end? When all of Orange, and specifically the last of the Orange County Acres falls victim to even more suburban sprawl? Is money more important than our quality of life? I totally oppose this assault on the last of our beautiful canyons. Please do not let this development proceed!

Sincerely,

Jim and Tracey Parkhurst
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**Jim and Tracey Parkhurst (PARKHURST)**

*Response to PARKHURST-1*
Comment noted. Please refer to Response to SMW-17.

*Response to PARKHURST-2*
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
At 5:42pm on Thursday evening this is what Santiago looked like. The traffic going west. We were returning home going East and this is what it looks like every weekday evening.
It’s absurd that the City of Orange are approving more home development on Santiago. We live in Broadmoor and we cannot even think about leaving out the back gate of Broadmoor onto Santiago from 4:30-5:00pm on.

Frances Bauer-Pendray
7826 E Broadmoor Trail
Orange 92869
Fran Pendray (PENDRAY 1)

Response to PENDRAY 1-1

Comment noted. Please refer to Response to SMW-17.
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12/23/18

Robert Garcia, Senior Planner, City of Orange;  
RGarcia@cityoforange.org  Phone: (714) 744-7231

Mr. Garcia, and Staff

RE: RDIER for Trails of Santiago Creek

Thanks you for perusing my letter, and listed concerns about this development. I ask that your office reconsider the RDIER and have the developer reconsider a complete a revised proposal which will include the items listed below.

#1. The Orange City General Plan does not have complete compliance. The current RDIER does not address concerns voiced at previous meeting held in our community, regarding the development.

#2. OPA has had a Specific Plan since 1973, which requires OPEN SPACE and limits the size lots on the project. In consideration our delegates have considered an option of 1 acre parcels. Maps have NOT been submitted, therefore I feel that the OPA offer is not being considered by the developer.

#3. In addition the delevoper have proposed changing the pre approved homes on the east side of the creek to the west side. This would take the place of the East Orange parcel which would require City Council approval. Again not taking into consideration the existing problem of home density.

#4. Several Zoning changes are proposed. Future zoning has to be watched diligently to avoid including multiple dwelling per acre. This could develop into many homes on an acre, and crowd the neighborhood.

#5. Tentative developments have not been submitted. Therefore, I am concerned that the overdevelopment is likely to occur. Once I have a TRACT MAP I can judge completely.

#6. Traffic in this area is now HORRIBLE during early morning, as well after afternoon hours of the day. The projections are incorrect and outdated. (Attached is a photo taken during the evening hour, note the traffic tightup)

#7. Contaminated Soils must be removed safely without clogging our already crammed traffic in that area. Estimates are that 73000+ truckload are to be removed!!! This would obviously take a few years to accomplish, with much wear and tear on roads, Traffic, dirt, and residents patience.

#8. The City of Orange would possibly need to add more traffic signals, more lanes and for resident’s protection, more police. This expense has been proposed by the developer as being born by the City, and our Tax Dollars.

#9. We are being asked by this developer to hold the beginning of the project for up to 15years. During this period we can envision other projects, already approved by the City, to be in the process. Again creating traffic congestion, and overpopulation of our OPA.

I feel that this RDIER is inadequate, not truthful, and inconsiderate of OPA residents, our community, our lifestyle and especially our legal rights for development. Proposal are currently being negotiated. OPA has made offers, yet unresponsive by the developer.
It appears to me that actions taken by City Council Members are beginning to limit the opposition. City Council Member have previously posted their favorable opinions on Social Media sights. These are alarming!

LeRoy Pendray  
7826 E Broadmoor Trail  
Orange, CA 92869
Leroy Pendray (PENDRAY 2)

Response to PENDRAY 2-1
Comment noted. Please refer to Response to FHBP-10.

Response to PENDRAY 2-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to PENDRAY 2-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to PENDRAY 2-4
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to PENDRAY 2-5
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to PENDRAY 2-6
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to PENDRAY 2-7
Comment noted. Please refer to Response to SMW-17.

Response to PENDRAY 2-8
Comment noted. Please see Master Response 9–Soil Import/Export Numbers.

Response to PENDRAY 2-9
Comment noted. As discussed in RDEIR Section 3.16, Transportation and Traffic, page 3.16-104, Mitigation Measure TRANS-2 would require the project Applicant to provide the City of Orange with fair share fees to restripe the northbound approach of Orange Park Boulevard at East Santiago Canyon Road to provide one exclusive left-turn lane and one shared left-turn/right-turn lane, prior to issuance of building permits. The Applicant’s fair share responsibility for these improvements is 18.2 percent.

Response to PENDRAY 2-10
Comment noted. Please refer to Response to SMW-17. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to PENDRAY 2-11
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
12/26/18
Robert Garcia, Senior Planner, City of Orange
RGGarcia@cityoforange.org  Phone: (714) 746-7231

RE: RDIER for Trails of Santiago Creek

Thanks you for perusing my letter, and listed concerns about this development.

#1. The Orange City General Plan does not have complete compliance. The current RDIER does not address concerns voiced at previous meeting held in our community.

#2. OPA has had a Specific Plan since 1973, which requires OPEN SPACE and limits the size lots on the project. In consideration our delegates have proposed 1 acre parcels yet The developer has NOT responded.

#3. In addition the developer have proposed changing the pre approved homes on the east side of the creek to the west side. This would take the place of the East Orange parcel which would require City Council approval. Again not taking into consideration the existing problem of home density and one acre homesites.

#4. Several Zoning changes are proposed. Future zoning has to be watched diligently to avoid including multiple dwelling per acre. This could develop into many homes on an acre, and crowd the neighborhood.

#5. Tentative developments maps have not been submitted. Therefore, I am concerned that the overdevelopment is likely to occur.

#6. Traffic in this area is now HORRIBLE during early morning, as well after afternoon hours of the day. The projections are incorrect and outdated. (Attached is a photo taken during the evening hour, note the traffic tieup!)

#7. Contaminated Soils must be removed safely without clogging our already cramped traffic in that area. Estimates are that 73000+ truckload are to be removed!!! This would obviously take a few years to accomplish, with much wear and tear on roads, Traffic, dirt, and residents patience.

#8. The City of Orange would possibly need to add more traffic signals, more lanes and for resident’s protection, more police. This expense would most likely be born by the City of Orange, and our Tax Dollars.

#9. We are being asked by this developer to hold the beginning of the project for up to 15years. During this period we can envision other projects, already approved by the City, to be in the process. Again creating traffic congestion, and overpopulation of our OPA.

I feel that this RDIER is inadequate, not truthful, and inconsiderate of OPA residents, our community, our lifestyle and especially our legal rights for development. Proposal are currently being negotiated. OPA has made offers, yet unresponsive by the developer.

It appears to me that actions taken by City Council Members are beginning to limit the opposition. City Council Member have previously posted their favorable opinions on Social Media sites. These are alarming.

LeRoy J. Pendray
7826 E Broadmoor Trail
Orange, CA 92869
**Leroy J. Pendray (PENDRAY 3)**

*Response to PENDRAY 3-1*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to PENDRAY 3-2*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to PENDRAY 3-3*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to PENDRAY 3-4*
Comment noted. Please refer to Master Response 1—Plan Consistency.

*Response to PENDRAY 3-5*
Comment noted. Please refer to Response to PENDRAY 2-6.

*Response to PENDRAY 3-6*
Comment noted. Please refer to Response to SMW-17.

*Response to PENDRAY 3-7*
Comment noted. Please see Master Response 9–Soil Import/Export Numbers.

*Response to PENDRAY 3-8*
Comment noted. Please refer to Master Response 9—Soil Import/Export Numbers.

*Response to PENDRAY 3-9*
Comment noted. Please refer to Response to PENDRAY 2-9.

*Response to PENDRAY 3-10*
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Robert Garcia

From: Heather Perkins <heather@ocpolo.com>
Sent: Saturday, December 22, 2018 4:25 PM
To: Robert Garcia
Subject: Trails at Santiago Creek

I oppose the development called:
Trails at Santiago Creek.

#1 - it will GREATLY affect traffic on Santiago Canyon Road and Cannon
#2 - it will affect the future of the Specific Plan for Orange Park Acres as an Equestrian Community
#3 - the proposed plan is on a flood plain, next to a landfill that is prone to natural hazards

The plan sets an extremely bad precedent for Orange and OPA.

If this project were to go through I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres.

Sincerely,
Heather Perkins
11011 Orange Park Blvd.
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Heather Perkins (PERKINS 1)

Response to PERKINS 1-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Response to SMW-17.

Response to PERKINS 1-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to PERKINS 1-3
Comment noted. Please refer to Master Response 4—Dam Safety and Risk of Failure. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to hazards are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials.

Response to PERKINS 1-4
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
Robert Garcia

From: Susan Perkins <susiekin@socal.rr.com>
Sent: Saturday, December 29, 2018 10:38 PM
To: Robert Garcia
Subject: Sully-Miller RDEIR Comments

Dear Mr. Garcia,

I've been an Orange resident/home owner for 36 years living near No. Cannon and E. Santiago Cyn Rd. What happens to the Sully-Miller property affects me and all my neighbors. A number of problem areas concern me: site reclamation or lack of it, water contamination danger and traffic impact. I am alarmed that the RDEIR does not address remediation measures to protect public health and is vague about the discharge of pollutants into downstream waterways. Traffic around the site is already a logjam during commuter hours. Construction would grossly exacerbate it and needs to be realistically addressed.

We depend on city planners to protect us and future generations. The current RDEIR is woefully inadequate.

Sincerely,

Susan L. Perkins
1328 No. Catalina St.
Orange, CA 92869
**Susan Perkins (PERKINS 2)**

*Response to PERKINS 2-1*
Comment noted. Please refer to Master Response 7—Applicability of SMARA, and Response to SMW-17. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

*Response to PERKINS 2-2*
Comment noted. Please refer to Master Response 7—Applicability of SMARA, and Response to SMW-17. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

*Response to PERKINS 2-3*
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Susan Philipp <susanjphilipp@gmail.com>
Sent: Sunday, December 30, 2018 11:40 PM
To: Robert Garcia
Subject: Trails at Santiago Creek

Dear Mr Garcia,

I am writing to express my opposition to the proposed development at the old Sully Miller Mining site on Santiago Blvd. in Orange. I spoke at the city council meeting the last time this developer tried to develop this property. Nothing has changed. All of the environmental challenges to this property still exist.

* It is still a flood zone.
* It is still an evacuation nightmare in the case of a fire or flood. Fires are not uncommon here. Floods are, but we only need one to wipe out all in its path.
* It is still home to a natural creek with very complicated management issues that to date no one agency has wanted to be responsible for.
* It is still a traffic jam, soon to be made worse by the 1,400 homes being built near the toll road. Santiago to Villa Park Road will never be made to be any wider that it is right now.
* It is still located next to an old garbage dump that will still require methane monitoring to any proposed housing.
* It is still Milan Capitol who history has shown us has no moral compass, no concern for the environment and no concern for the citizens of Orange.
* It is still a huge liability for Orange.

The last proposal was appropriately denied by the City Council. Again, all of the environmental challenges to this property still exist. Nothing has changed.

Thank you,

Susan Philipp

10752 Meads Ave.
Orange, CA 92869

Orange Resident for 23 years
Susan Philipp (PHILIPP)

Response to PHILIPP-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to PHILIPP-2
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to PHILIPP-3
Comment noted. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

Response to PHILIPP-4
Comment noted. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to PHILIPP-5
Comment noted. Please refer to Response to SMW-17.

Response to PHILIPP-6
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to PHILIPP-7
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to PHILIPP-8
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to PHILIPP-9
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
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Mr. Garcia,

First, let me note that I would have preferred a deadline for submission of comments on the Sully Miller proposal that did not fall at the end of the year, specifically New Year's Eve. Such dates have a tendency to discourage commentary by placing undue pressure on members of the community when they are most distracted by their holiday obligations. I hope that the date setting was not intentional.

In my mind, the Sully Miller proposal is defective on several fronts. Firstly, its revival is discouraging because, after the last prolonged round of litigation and lobbying, we had reached some level of finality. However, we now have to confront the renewed prospect of unfriendly and incongruous development because a persistent developer has chosen to continue ignoring community concerns.

That said, the Sully Miller proposal and the recirculated RDEIR are defective in specific and concrete ways. Among them, it underestimates the traffic impacts of the project in an area already highly impacted by day trips. It discounts existing project alternatives, assuming that sand and gravel operations that were previously deemed near exhaustion would continue long-term and rejecting out of hand the Collaborative Group Alternative. It also does not provide any detailed information about the character and scope of remediation, hiding behind inaccurate legal technicalities with respect to SMARA applicability.

For these reasons, the DEIR should be done again in a more robust manner, with an eye towards giving a true picture of the proposed development rather than providing a compromise or developer friendly document.

Thank you for your time and attention.

Jason Phlaum
5849 E. Valley Forge Drive
Orange, CA 92869
jphlaum@gmail.com
**Jason Phlaum (PHLAUM)**

*Response to PHLAUM-1*
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

*Response to PHLAUM-2*
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

*Response to PHLAUM-3*
Comment noted. Please refer to Response to SMW-17, Master Response 3—Analysis of Alternatives, and Master Response 7—Applicability of SMARA.

*Response to PHLAUM-4*
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
Robert Garcia

From: Kim Plehn <kim@caseclub.com>
Sent: Thursday, December 6, 2018 5:20 PM
To: Robert Garcia
Subject: Sully Miller Property

Dear Mr. Garcia, my name is Kim Plehn, and I live in the Reserve, adjacent to the Sully Miller Property. I have lived next to it for 24 years, and I understand it has been there for a century. I moved into our home, accepting that it was there, and never expecting any changes to the gravel operation. I DO NOT support Milan Capital in trying to bully Orange Park Acres, into changing the zoning that falls within the Orange Park Acres Specific Plan. I have attended the planning commission meetings, the Orange City Council meetings, and expressed my detailed opinion in the last months Sentry newspaper. It seems like the noisiest complaints, and the only homeowners that Milan is wining, and dining, are those living right next to the quarry. They tell these homeowners they will start crushing rocks 7 days a week, if they don’t get what they want. This developer has made a horrible business decision, by purchasing a piece of property that is not zoned for his financial profit. He gambled, hoping to get a zone change, that the majority of this community doesn’t support. Furthermore the specific Plan legally protects Orange Park Acres 1 acre lots, and was designed to protect this small rural environment against exactly what this developer wants to do. Higher density housing. Besides horse properties, and the awesome trail system we work so hard to maintain, I encourage you to see the gridlock we are now experiencing during rush hour traffic at night. Its just a mess. Where Milan can build legally, they have a right. Where we are protected, lets uphold that zoning legally. Don’t let the few bullies speak for all of Orange Park Acres. Sincerely Kim Plehn (714) 771-7992 1622 Pepper Wood Circle OPA in the Reserve

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Kim Plehn (PLEHN 1)

Response to PLEHN 1-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to PLEHN 1-2
Comment noted. Please refer to Response to SMW-17.

Response to PLEHN 1-3
Comment noted. Please refer to Master Response 1—Plan Consistency.
Robert Garcia

From: Kim Plehn <kim@caseclub.com>
Sent: Friday, December 28, 2018 9:18 AM
To: Robert Garcia
Subject: O.P.A. Specific Plan

To Mr. Garcia, please uphold Orange Park Acres Specific Plan, 1 acre lots. This protects our equestrian area, and allows us to have horses, and enjoy the many trails in Santiago and Irvine Park. Milan made a horrible decision to purchase land that is NOT zoned for houses, for many reasons. Besides environmental hazard, the traffic here on Santiago is already horrible. Please protect, and represent the people of Orange, that you serve. Thank You Kim Plehn 1622 Pepper Wood Circle Orange 92869 (714) 771-7992

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Kim Plehn (PLEHN 2)

Response to PLEHN 2-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to PLEHN 2-2
Comment noted. Please refer to Response to SMW-17.
Hi Robert Garcia, Senior Planner, I have never written a letter to a city official because I think most of the time it would be a waste of my time, but I felt compelled to let you know how I felt about the Development called "Trails at Santiago Creek". I live in the Reserve and have lived in the Reserve for 26 years. The proposal that Milan REI X has filed with the city of Orange to develop the Sully Miller site threatens safety, open spaces and zoning in OPA not to mention the traffic will become a lot more impacted than it already is. If you do not believe me come out here on any work day between 4:00 and 7:00 PM and see for yourself. If you let Milan's project for Sully Miller go through by amending existing general and specific plans it will have a very adverse effect on all of OPA for now and the future.

This project is so obvious as to what Milan is trying to do:

1. They want to try to hold the horse area, ridgeline and Marbury Ranch's approved home sites as bait in order to negotiate for the Sully Miller site. This is one of the worse investments I have seen and the only way out for Milan to make money is to try to change the zoning to allow for 200 plus units and recoup some of the money invested. All this does is bail out the investors at the expense of the citizens of Orange.

Please do not allow this to happen to our city.

Sincerely,

Kirk Plehn

Case Club: Product Sales & Custom Foam
4765 E Bryson St, Anaheim, CA 92807
Tel: 714.779.8794 | Toll free: 877.412.2737
Kplehn@CaseClub.com | www.CaseClub.com

Carrying Cases | Shipping Cases | Custom Foam Inserts
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Kirk Plehn (PLEHN 3)

Response to PLEHN 3-1
Comment noted. Please refer to Master Response 1—Plan Consistency and Response to SMW-17.

Response to PLEHN 3-2
Comment noted. Please refer to Response to SMW-17.

Response to PLEHN 3-3
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
December 24, 2018

Richard Garcia, Senior Planner  
City of Orange  
300 E. Chapman Avenue  
Orange, CA 92866

Dear Mr. Garcia,

It is an understatement to say that I am extremely opposed to the Trails at Santiago Creek project AND any changes to the OPA specific plan.

OPA is one of the last standing rural or country feeling places in our County. My husband and I moved here 23 years ago from Fullerton, where the planners have failed the community. Please leave our little section of Orange as it was meant to be. That Sully Miller site is an eyesore, for sure, but putting a housing community there is only going to make matters worse. The traffic generated around the corner of Cannon and Santiago is more than horrible (and embarrassing). You owe it to yourself to try and go west on Santiago from Newport to Cannon anytime after 3:00 on a weekday. If you vote to change our specific plan, you have opened up a can of worms that can never be taken back.

I ask you to look inside your head and heart and realize what a unique and special place OPA is. I cannot tell you how often someone will stumble into our community and be utterly amazed that it exists, in Orange County, minutes from Disneyland! We have some wonderful people working very hard to keep our community as-is AND improve it further with more trails and uniqueness, so, please let them move forward.

I would love to see one acre, horse friendly homes built on the Sully Miller site, however until the traffic situation is rectified, I think even that should be put “on hold”.

My husband and I used to live in a lovely little tract of homes in Orange called Crest de Ville. We lived in the second home from the gate. When the plans were being made to open up Cannon to Imperial, we went to all of the council meetings. We were told by experts that there would be “no impact” on the noise or traffic with this change. The road did go forward... and look at it now. I am shocked that the so-called “experts” can get away with their bogus “reports” and not be held accountable. I have a friend who is a housing appraiser, she is held accountable and can be sued for a bad appraisal!

Please leave OPA as it is. Please DO NOT allow the Trails at Santiago Creek to be built.

Thank you,

Joann Pinto  
7446 Saddlehill Trail  
Orange, CA 92869
Joanne Pritts (PRITTS 1)

Response to PRITTS 1-1
Comment noted. Please refer to Master Response 1—Plan Consistency and Response to SMW-17.

Response to PRITTS 1-2
Comment noted. Please refer to Response to SMW-17.

Response to PRITTS 1-3
Comment noted. Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to PRITTS 1-4
Comment noted. Please refer to Response to SMW-17.

Response to PRITTS 1-5
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
December 24, 2018

Richard Garcia, Senior Planner  
City of Orange  
300 E. Chapman Avenue  
Orange, CA 92866

Mr. Garcia,

I am opposed to the Trails at Santiago Creek project, and any type of change to the OPA specific plan.

Until you get the traffic congestion under control you should not be considering anything on that Sully Miller site.

OPA is a strong little community who holds their specific plan dearly. Don’t mess with them.

Joe Pritts  
7446 Saddlehill Trail  
Orange, CA 92869
Joe Pritts (PRITTS 2)

Response to PRITTS 2-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to PRITTS 2-2
Comment noted. Please refer to Response to SMW-17.

Response to PRITTS 2-3
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
Dear Mr. Garcia,

When I moved to Orange Park Acres over twenty years ago, it was with the understanding that after working all day and driving back and forth from LA (or wherever my business may take me), my life would have a relative level of tranquility once I was home. That is a reason I moved here and for several years I loved it. I found the life style I craved here in OPA. But the last few years the life-style for which we moved here has been greatly impacted by the increasing traffic in my neighborhood. After spending my commute in traffic driving from wherever, I STILL NEED TO SIT IN EVEN MORE TRAFFIC ON SANTIAGO Canyon, from Jamboree to Cannon, which is right in my own backyard as I live off Windes and Santiago! The traffic on Santiago Canyon is emotionally and physically draining. Even on days that I work from home, I am still faced with the onslaught of traffic when I run my routine errands. My days of peace and serenity in my own neighborhood are gone. I was not expecting to spend my golden years fighting traffic because of the onslaught of people wanting to take short-cuts in my own back yard.

Yet there is the possibility that even MORE HOMES MAY BE BUILT on the Sully Miller property which will, without a doubt, create even more traffic. To reiterate, I moved here for the peace, quiet and calmness that a semi-rural community brings. Although I don't own horses, I love to see the horses and hear the roosters. I LOVE THE OPEN SPACE! I moved here to feel like I am away from "the city". Yet, I am seeing more and more cars and tractor trailers on Santiago Canyon which only reminds me of being back on the freeway, in the city, something I loathe and something I should not have to tolerate in my semi-rural community. I recognize Santiago Canyon is a public road but it has encroached on my peaceful life because commuters have chosen to use my backyard as a short-cut for their commute.

Therefore, I strongly OPPOSE going ahead with the development known as "Trails at Santiago Creek". PLEASE LISTEN TO THE PEOPLE THAT LIVE HERE because our happiness and our lifestyle for which we all moved here depends on it.

Barbara Quant
7035 Grovewood Lane
Orange
Barbara Quant (QUANT 1)

Response to QUANT 1-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to QUANT 1-2
Comment noted. Please refer to Response to SMW-17.

Response to QUANT 1-3
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Response to SMW-17. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
I OPPOSE THE DEVELOPMENT CALLED "TRAILS AT SANTIAGO CREEK" as this will further interfere with my semi-rural lifestyle. The traffic up to now is horrendous and greatly impacts the manner in which my neighbors and I have been forced to live with. More homes in our area will be a disaster.

We paid greatly to live here, we pay our share of taxes and we want to live in peace and harmony and any more building in this area will be detrimental to the reason we moved here in the first place.

Please listen to the citizens of OPA - NO MORE BUILDING...... we want to maintain our OPEN SPACES!!!!!!

Sincerely,

Leonard Quant
Groverwood Lane
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Leonard Quant (QUANT 2)

Response to QUANT 2-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: David Randall <ardr1@dslextreme.com>
Sent: Sunday, December 30, 2018 8:56 PM
To: Robert Garcia
Subject: Opposition to Trails at Santiago Creek Proposed Development

My family and I have been residents of Orange for the past 41 years and we are 100% opposed to the Trails at Santiago Creek development.

We live within a half-mile of the proposed development. We have been aware that the subject property has been zoned open-space resource for many years and, that the specific plans for East Orange and Orange Park Acres call for the land to remain open space. The proposed development, plus the new homes being built at Chapman Avenue and Jamboree Road, would result in increased traffic on Santiago Canyon Road and Cannon Street. More open space is needed, Not More Traffic.

Thank you.

David Randall
5331 E. Juaneno Avenue
Orange
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David Randall (RANDALL)

Response to RANDALL-1

Comment noted. Please refer to Master Response 1—Plan Consistency and Response to SMW-17.
December 20, 2018

Robert García
Senior Planner
City of Orange
300 E. Chapman Avenue
Orange, CA 92866

Re: Milan REI X – Trails at Santiago Creek

Dear Mr. García,

This letter is in regards to the above listed project, my concerns with the property and what Milan is intending to do with it.

I am a Jamestown resident and my backyard sits on Santiago Canyon Road. As you may know, the traffic and noise is already quite serious. Should Milan be granted a rezoning to build the 128+ homes they are currently seeking, it would be disastrous for not only my small community but the surrounding communities as well.

Currently, as it stands, the homeowners trying to exit out of Jamestown and turn right onto Santiago Canyon Road must do so at extreme caution during the morning hours of 7:00 to 8:30, as the traffic coming off Cannon taking the short cut to the 241 is excessive to say the least. It is literally impossible to exit Jamestown and turn left in the afternoon from 3:30 – 6:30 or 7:00 pm, due to the intense traffic jam. Currently most of us have to go down San Juan to Cannon to catch the light, and safely make the turn there. In the evenings, it can take me 20 minutes from Jamboree/Chapman crossroads to get to the Jamestown entrance, as the traffic is horrendous. Should the additional 128+ homes Milan is proposing be built, the traffic will be nothing less than gridlock.

In addition to the traffic, the noise for us starts at 5:30 am, with the constant rushing of the cars going and coming from 5:30 am to 9am and then again from 3:30 to 7pm at the minimum. Should these proposed homes be built, the traffic will be ridiculous, due to the added lights, added cars coming in and out of the housing project and entering or exiting the Jamestown community will all have to be done off of San Juan and Cannon as the proposal shows a light at Nicky Way.

The dirt and grime that comes off the street continues to make the back of my house extremely dirty to say the least. If Milan is allowed to build the 128+ homes, the land prep will be enormous. The hauling away of and bringing new dirt in will keep my backyard in a constant state of dirt and grime and I will not be able to open my windows on that side of the house. The addition of all the new cars will just add to the problem.

If the proposed 128+ homes is granted, and actually built, the traffic, noise, dirt and grime that it will bring, will make our small communities virtually gridlocked with traffic, it will feel more like we are living “downtown” with all the noise verses this quaint little section of Orange. Please don’t let the surrounding communities become a victim of Milan. The zoning has never been changed for a reason. Please do not let this developer come in and take away all that the community has stood for, for so
many years, just so they can profit from it. Milan bought the property as it currently zoned for. Please do not make us pay for their mistake, as there is just too much at stake.

Eventually homes will need to be built there and I understand that, but at what cost? We do not need an additional 128+ homes. The land is currently zoned for 40 homes; let them build what it is zone for and be done with it. If you change the zoning and unless there is a clause that states it cannot be rezoned for more homes, Milan will never develop, they will sell the land to another developer who will want to rezone for more homes and they will win. Please do not set a precedence that the City of Orange will allow for more rezoning. It is too much of an open door.

I appreciate you taking the time to read and consider my concerns.

Kind Regards,

Deborah Redfern
5815 E. Valley Forge Drive
Orange, CA
Deborah Redfern (REDFERN)

Response to REDFERN-1
Comment noted. Please refer to Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

Response to REDFERN-2
Comment noted. Please refer to Response to SMW-17.

Response to REDFERN-3
Comment noted. Please refer to Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

Response to REDFERN-4
Comment noted. Please see Master Response 9—Soil Import/Export Numbers. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to REDFERN-5
Comment noted. Please refer to Response to SMW-17 and Master Response 1—Plan Consistency. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to REDFERN-6
Comment noted. Please refer to Master Response 1—Plan Consistency.
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Robert Garcia

From: Michael Reed <mreed1@socal.rr.com>
Sent: Thursday, December 27, 2018 2:56 PM
To: Robert Garcia
Subject: The Trails at Santiago Creek Project

Dear Mr. Garcia,

My wife and I firmly oppose The Trails At Santiago Creek development project. We believe the Draft Environmental Impact Report is inadequate and does not comply with multiple governing regulations that exist for this type of project.

Others will have submitted detailed information as to why we believe the RDEIR to be poorly drafted and why important pieces of information are missing from the document. Our concern stems from a more empirical point of view.

We’ve lived in The Colony for 40 years and have noticed the increasingly negative impact of earlier development on the traffic in our area. I invite you to experience evening traffic on westbound Santiago Canyon Road where rush hour traffic will sometimes back up at Cannon Street all the way to Jamboree and further. Turning left off of Jamestown Drive under those conditions is dangerous to say the least. Trying to exit our street by going west to Cannon yields another complete traffic jam on northbound Cannon Street. At the peak of rush hour, it can be impossible to turn from westbound San Juan Drive onto northbound Cannon without blocking the intersection.

We believe the figures in the RDEIR grossly underestimate the increased number of daily vehicular trips generated by this project during the site cleanup phase, the construction phase as well as the inhabiting phase.

We further believe that the developers have used inappropriate figures to calculate the number of homes that can be built on the site. We understand that comparable lot sizes for the project were taken from smaller Eichler lots west of us which are further away from the project than homes in our area just across Santiago Canyon Road or in Orange Park Acres. The intent seems to be to obfuscate the true minimum lot sizes so that more homes could be built on the site. More homes mean more vehicle trips than the developers put in their project documents.

We believe the project plans need extensive revision if the quality of life in our neighborhood is not going to suffer due to this ill-conceived and poorly planned development.

Michael and Sandra Reed
5827 E San Juan Drive
Orange
Michael and Sandra Reed (REED)

Response to REED-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to REED-2
Comment noted. Please refer to Response to SMW-17.

Response to REED-3
Comment noted. Impacts related to land use and planning are discussed in RDEIR Section 3.10, Land Use and Planning.
Robert Garcia

I am writing this email to let you know that I am OPPOSED to the Sully Miller Project that is being discussed and negotiated on Santiago near Orange Park Acres.

I have heard the many arguments about it being an eye sore, causing dust and bringing down property values. However, what I am confused about is that Sully Miller purchased this property knowing what this land was; not zoned for homes. Yet, they went ahead with the purchase with the intent to get the zoning changed for their own purposes - and profits.

This zoning change will not benefit Orange. This land is part of a flood zone and it is next to an old landfill where methane gas is still escaping. I lived in Anaheim near an old landfill where building thought it would be a good idea to place mobile homes. It was on Lincoln close to Beach Blvd. This entire complex had to be torn down as the land continued to settle and made completely unsafe and unlivable. Why would we want to bring these problems and liability to Orange?

If homes were unfortunately built in this area, it would negatively impact the local schools, and the highway of Santiago. I was evacuated during the fire last year and it took me almost an hour to get from my home on Kennymead to the 55 freeway. When I got to the 55 freeway, the police were exiting cars from the freeway on the onramp onto Katella because the freeway was negatively impacted because of the fire off of the 91. Traffic is a major concern on Santiago now. Take a look in the afternoon and see the grid lock. More homes equals more cars.

I have heard many more reasons why Sully Miller should be not allowed to move forward, which I am sure you are aware of. Why is the city even considering this? If I purchased a piece of land in a neighborhood and then wanted to build a restaurant, would that be allowed? Of course not - but if I had lots of money, would that change anything? It shouldn't - yet that is what it appears we as a city are doing with this company that purchased this property. Their RDEIR is inadequate and I believe we should not be considering any more promises and lies from this company.

Thank you

Cindy Lynn Reina
Cindy Reina (REINA 1)

Response to REINA 1-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to REINA 1-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to REINA 1-3
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to REINA 1-4
Comment noted. Please refer to Response to SMW-17.

Response to REINA 1-5
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.
Robert Garcia

From: reinabunch@aol.com
Sent: Sunday, December 30, 2018 4:51 PM
To: Robert Garcia
Cc: StopSullyMiller@gmail.com; editor@foothillsentry.com
Subject: Stop Sully Miller

Mr. Robert Garcia, Senior Planner

City of Orange

300 E. Chapman Ave.

Orange, Calif. 92866

Dear Sir,

I am writing to you today to express my dismay over the situation going on in Sully-Miller.

The Owners of that property have been trying for several years to build homes on a gravel pit site, that clearly is not zoned for residential development. Milan REI knew this when they bought the property, and have been trying to change the zoning by many nefarious means, to allow them to build homes there.

They have promised us trails, a golf course, parks, and open spaces, and when those enticements failed to get their zoning change, they threaten to continually dump rock at the site, to make it an eyesore. (It already is.) my objections are from a homeowner's perspective. Our schools cannot accommodate the kind of influx this will create, our streets, (already overcrowded, see Santiago Canyon Road on a weeknight), and the danger to the new homeowners is undeniable.

The area is on a floodplain, the ground is subject to liquefaction in an earthquake, and Santiago Creek became a raging river, and virtually flooded the entire area in 1969. Do you think that won't happen again?

We implore you, sir to do the right thing, stop this greedy developer from putting People, homes, and the environment to any more risk.

Thank You

Cynthia Joy Reina
Cynthia Reina (REINA 2)

Response to REINA 2-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to REINA 2-2
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to REINA 2-3
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Please refer to Appendix I, Geotechnical Report. Furthermore, see RDEIR Section 3.6, Geology and Soils.

Response to REINA 2-4
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: reinabunch@aol.com
Sent: Sunday, December 30, 2018 5:02 PM
To: Robert Garcia; StopSullyMiller@gmail.com; editor@foothillssentry.com
Subject: Opposing the development called Trails at Santiago Creek

Mr. Robert Garcia

Senior Planner, City of Orange

Mr. Garcia,

I have been watching with interest, and then some dismay the actions of Milan REI in the past few months, and am very concerned that our city is even considering allowing Milan to build homes on Sully-Miller.

The areas that they want to develop are inadequate for residential expansion on a number of seriously frightening levels...

First, the traffic on Santiago Canyon road, is already a nightmare, with vehicles backed up all the way to the 241. Many of us in the area cannot easily get out of our tract of homes between the hours of 4-6 p.m. Monday through Friday. Milan's proposal to fix this is laughable...Re-Stripe the road...!

So, if that's all it takes, let's re-stripe the 91 freeway, and the 110, how about the 405 near LAX? I think you get the picture. If we have another disaster, like in Paradise, California, many will die trying to get out...newly painted lines or not...

The next factor against concerns the land itself...sitting downstream from two earthen dams, in a flood plain...again, the liability to the city, (and its citizens, who will ultimately pay) is enormous. What kind of stupid will allow someone to build 128 homes, (IF, that's all they build) on a FLOOD PLAIN?

I appeal to you, sir, in your capacity as a decision maker to stop this development before homes, or more are lost.

J. Vincent Reina

Orange Park Acres
J. Vincent Reina (REINA 3)

Response to REINA 3-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to REINA 3-2
Comment noted. Please refer to Response to SMW-17. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

Response to REINA 3-3
Comment noted. Please refer to Response to SMW-17.
I am opposed to the Milan REI plans to build on the following grounds: The Traffic issues already facing us on Santiago Canyon are real, and disturbing. Every night, traffic is backed up for miles and is inadequate for another possible evacuation, in case of fire. During the last fire, it took my family and I an hour to go two miles, from Meads Street to the 55 freeway. Another fire disaster would cause even more traffic if Milan’s plans were allowed to proceed, and the results would be apocalyptic, another City of Paradise disaster. The Taxpayer liability is tremendous, health and safety issues will make all of us liable for taxpayer money to remedy this. Next, the OPA plan was put in place to protect one of the LAST equestrian zones in Orange County. I do not own horses myself, but do enjoy the lifestyle that one-acre parcels of property affords. To make matters worse, this is a dam inundation zone, two upstream EARTHEN dams are all that prevent a flood on major proportions from happening there in the next major rainstorm. Hundreds of people, and their homes could be at risk. and the last of many points available, that I will speak out on is the Liquefaction of this site. This area is subject to homes being damaged or destroyed in an earthquake, due to the fact that liquefaction causes ground water to RISE, with the possibility of homes sinking. Please listen to those of us who urge everyone to stop Milan from developing a parcel of ground that was never zoned for homes due to these extreme issues.

Sincerely, John Reina, Orange Park Acres.
**John Reina (REINA 4)**

*Response to REINA 4-1*
Comment noted. Please refer to Response to SMW-17.

*Response to REINA 4-2*
Comment noted. Please refer to Master Response 1—Plan Consistency. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

*Response to REINA 4-3*
Comment noted. Please refer to Master Response 4—Dam Safety and Risk of Failure. Please refer to Appendix I, Geotechnical Report. Furthermore, see RDEIR Section 3.6, Geology and Soils.

*Response to REINA 4-4*
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Mr. Garcia,

As a homeowner in the Orange Park Acres area of Orange, I am writing to you to tell you that I am diametrically opposed to the proposal that Milan REI X has proposed for development of the Sully Miller site.

This development is not only illegal, it is dangerous to our community safety on a frightening number of levels. This project site sits on land that is prone to liquefaction, is in a flood zone, and after the last fires we suffered, cannot support the traffic congestion that will result in normal activities, but is proven to be a danger, and liability to the City of Orange, if another fire necessitates evacuations. My family and I were evacuated during the last fire, and it took us an hour to go 2.1 miles to the 55 freeway.

This is precisely the kind of highway deathtrap that killed dozens when they attempted to evacuate, on a road in Paradise, California, eerily similar to Santiago Canyon Road, and the fire caught up with those fleeing on the ONLY road out of the area.

Please listen to the concerned residents, and stop this unwanted, poorly thought out, and possibly dangerous project from continuing. The developer is only interested in making money on the property, even though they know full well, and it is so documented, that this area is not zoned for residences for multiple valid reasons.

Thank You,
John Reina
1484 N. Kennymead St.
Orange, Calif. 92869
**John Reina (REINA 5)**

**Response to REINA 5-1**
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

**Response to REINA 5-2**
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Please refer to Appendix I, Geotechnical Report. Furthermore, see RDEIR Section 3.6, Geology and Soils.

**Response to REINA 5-3**
Comment noted. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

**Response to REINA 5-4**
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Cindy Reina <crconsultingsvs@aol.com>
Sent: Sunday, December 30, 2018 4:54 PM
To: Robert Garcia
Cc: editor@foothillssentry.com; stopsulymiller@gmail.com
Subject: Milan Proposal

Mr. Robert Garcia, Senior Planner

City of Orange

Mr. Garcia,

My name is Theodore Reina, and the reason for this letter, is that I am very concerned about the Milan REI X plans to develop on the gravel site known as Sully Miller.

I am extremely opposed to this development for a number of reasons. First of all, Milan knew when they purchased this property that it was specifically not zoned for residential use. They have proceeded anyway, trying to influence the County Board of Supervisors, corrupting the Orange City Council, and spending untold amounts of dollars to influence residents that the so-called "Trails of Santiago Creek" are a good idea. The plans proposed have been in the whole, incomplete, misleading, and erroneous, to say the least.

The "Trails of Santiago Creek" are neither trails, nor are they realistic, and Milan has no intention of keeping the many promises made to residents to change their opposition. In the past, we have had promises of "Golf courses", "Open Areas", "Horse Trails", and many other falsehoods, too numerous to mention here.

The sad fact of the matter, is that this land is DANGEROUS to build on. It is prone to liquefaction when flooded, it is in a flood plain, and worse of all, there will only be a few entrances and ways to egress. Our family was evacuated during the past fires, and Santiago Canyon Road was woefully inadequate for the numbers of people here now. Imagine the catastrophe if these homes are built, and the next fire, (and we have been assured there will be one) occurs. 1 homes lost, and the very real possibility of multiple fatalities, very similar to what happened in Paradise, California. Do you want to be responsible for answering to the families who have lost everything? The liability factor to the city alone, outweighs the tax dollars it will receive.

Thank You

Theodore Jay Reina
Theodore J. Reina (REINA 6)

Response to REINA 6-1
Comment noted. Opening remarks. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to REINA 6-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to REINA 6-3
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Please refer to Appendix I, Geotechnical Report. Furthermore, see RDEIR Section 3.6, Geology and Soils.
Hello,
The development of this property will force us to move. The traffic is already horrible on Cannon. Developing the property will only make things worse. Plys the fact that land used to be a dump. Who knows what this means to airborne contamination?

Thank You
Kay Ressler
Kay Ressler (RESSLER)

Response to RESSLER-1
Comment received. Please refer to Response to SMW-17. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.
Robert Garcia

From: KIM RIECHMANN <kreichmann@fastmail.com>
Sent: Thursday, December 20, 2018 3:58 PM
To: Robert Garcia
Subject: [BULK] MILAN REI X "TRAILS OF SANTIAGO CREEK"

Importance: Low

This is to advise you that our family is OPPOSED to the development of the Milan Corporation called, "Trails at Santiago Creek".
The space should remain as is WITHOUT adding further traffic in the area which is ALREADY extreme as well as changing Mabury Ranch, semi-rural community...

Thank you for not voting with the city's pocketbook in mid and with your conscious to not disrupting our way of life.

KIM RIECHMANN
kreichmann@fastmail.com
Kim Riechmann (RIECHMANN)

Response to RIECHMANN-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Response to SMW-17.
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December 27, 2018

Dear Mr. Robert Garcia,

The Recirculated Draft Environmental Impact Report (RDEIR) for The Trails at Santiago Creek is inadequate. I oppose The Trails at Santiago Creek as proposed for the following reasons:

Land use for the site is governed by four separate planning documents. The East Orange General Plan, Orange Park Acre Specific Plan, Santiago Greenbelt Plan and Santa Ana River/Santiago Greenbelt Implementation Plan designate 90% of the site (96 acres) to be open space. Rezoning to low density residential sets a bad precedent for Orange and Orange Park Acres.

Safety issues: The project is proposed on a flood plain in a dam inundation area next to an area being vented for methane. That is the reason that the four governing plans have designated the area open space/regional park, and not residential. As experienced during the recent fires and on a daily basis during busy morning and evening hours, evacuation from this site would be challenging, as the area is already teeming with traffic. It is doubtful that the proposed mitigation measures would make that much of a difference.

As the site no longer contains sufficient amount of material for surface mining, the area should be remediated and restored back to open space, park, and trails for the enjoyment of the community. The owner knew what was being purchased. The owner does not have property rights to build a residential community on anything but the small section of land adjacent to Mabury Ranch. The city does not have an obligation to approve this inappropriate project for this space. The Orange General Plan does not promote changing Open Space to Residential. Existing plans should be honored, including the property rights of existing residents.

Preface - PDA does not represent discussions with residents of the Jamestown/South Colony Neighborhoods - directly across the street from the proposed project.

Table ES-1, ES-5 I pages 89, 90, 91, Exhibit 2-5, Justification for the proposed lot size percentages are inaccurate and deceptive: Smaller "worker/caretaker" lots which front Santiago Canyon Road and were grandfathered into the OPA Plan, were included in the mix of nearby homes, rather than the more prevalent 1 acre plus lots right behind them in OPA. In addition, the proposal doesn't take into consideration the half acre lots on Portsmouth and the larger lots off of Jamestown. Instead, Eichler homes and other tracts that are further away from the proposed project, were used to determine "compatible lot sizes." The plan also doesn't take into consideration that a good portion of the project is in the Orange Park Acres Sphere of Influence that requires 1 acre lots.

ES-4 states: "Continue the cessation of the currently permitted operation of the sand and gravel operation during the processing of the project consistent with June 12, 2015 memoranda submitted by applicant." "Suspend backfill and stockpiling operations
effective September 15, 2015.” Multiple areas of the document talk about the suspension of activity on the property. There has been significant activity since August 2018. Multiple truckloads of materials have been dumped daily and continue to be dumped. Much of the degrading of the land that needs to be remedied is due to the current owner’s activities. The area directly across the street from the Jamestown/Colony South Neighborhood had been level ground until the current owner began stockpiling.

1 - 128 single-family homes proposed for designated open space/regional park area - zoning is only approved for residential in a small area adjacent to Mabury Ranch. The residents of Mabury Ranch do not want homes adjacent to their neighborhood; therefore the big push to build homes elsewhere on the property. The plan ignores the input from the Liaison Committee. When we moved into our home 31 years ago, a park was promised on the Sully Miller Property. At the time that Hanson Properties lost their appeal to continue stockpiling and gravel crushing of material brought on to the site, and the operation shut down, the city should have moved to have the Surface Mining and Reclamation Act of 1975 implemented. I believe inaccurate information has led the city/Milan to believe the Act is non-applicable. In addition, proof that the Act should be implemented is the finding in 3.10-19 that hazardous soil containing Total Petroleum Hydrocarbon and trichloroethylene does exist on the site from previous mining activity. Grading permits were issued previously to address some of these issues as well as to remedy the silt in the area; however, it doesn't appear that the grading was done for that purpose, nor did it remediate any of the issues for which the permit was issued.

ES-7 Significant Unavoidable Adverse Impacts: 275,400 haul trips for 18 months. Maximum daily construction emissions, even after all mitigation measures are implemented, would continue to exceed the South Coast Air Quality Management District's Regional Significance Threshold in all categories. The noise would also be significant for which mitigation measures are not adequate. **No development, or building on a smaller footprint would mitigate some of this. As would, discontinuing the current stockpiling.**

3 - $4,100,00 designated for landscaping and other improvements-doesn't mention the amount needed for creek restoration and erosion issues

ES-7 Mitigation at intersection of Orange Park Blvd/E Santiago Canyon Road- Traffic impacts significant and unavoidable.

ES-36 Noise and 3-16 Transportation. I find it concerning that it actually states that it will be essential for air conditioners to be placed in each home due to the traffic noise in the area which would require windows to be closed for extended periods of time - something which we have already been experiencing for awhile in our existing homes. Santiago Canyon Road needs to be repaved with tire sound absorbing material to help mitigate this issue. An additional amount of traffic as a result of the size of the proposed project does not aid the situation. Is it really appropriate to build new homes in an area where it will be required to keep windows closed for a good portion of each day?
128 homes equates to a minimum of 512 additional car trips a day. Both adults in the
home are usually employed. In addition, most homes would include teen or young adult
drivers adding additional trips. It is already extremely difficult to exit our neighborhood
during morning and evening hours. The planned restriping of Cannon may aid in
alleviating some of the issue on Santiago Canyon Road, but will probably not solve the
problem on Cannon between Chapman and Santiago Canyon Road, nor, according to the
DEIR, mitigate the impacts listed above.

ES-15 "Moisten Soil Each Day...What is the chemical proposed in several places for
soil stabilization? This question was not answered from first round of comments.

MM Bio 2b, Bio 3, Bio 4 - On or off-site restoration or enhancement of least Bell’s Vireo
habitat, riparian communities. Only on-site restoration should be allowed, no
purchase of credits or mitigation elsewhere in exchange for damage or removal of
habitat. This was mentioned by more than one person in response to the initial
DEIR. No changes have been made in the RDEIR.

Section 3.10 - Land use Planning Impact LUP-1 The project conflicts with all of the
applicable provisions of the current governing plans.

Impact LUP-3 The project does conflict with natural communities and conservation
plans.

On page 127 Appendix Q 6.4.6.1:
There are currently 4 access points for public trails. It states, "Representatives from
Mabury Ranch have indicated that they want limited access to the public in Planning
Area A and to Greenbelt and Trail Areas." Public Access should be ensured from all
sides of the proposed project area.

The Trails at Santiago Creek Specific Plan in Appendix Q 8.4.1 on pages 8-3, states the
following, “…Preliminary Greenway, Open Space and Trails Plan shall be offered for
conveyance for ownership and maintenance to Orange County, the City of Orange, or a
public entity as a publically available trail system.” “…Unless and until the applicant’s
offer is accepted, the public trails shall be privately owned and maintained by the Master
Homeowner’s Association…”

The county, the entity that would be the likely land manager, has not been contacted
by Milan Capital regarding the proposed open space area to ascertain what would
be required for the county to agree to acquire or manage the proposed open
space. It should be required for Milan to meet with county representatives to obtain
accurate figures for the cost of creek restoration, etc. and work out a plan that
would meet county requirements before any rezoning is approved. There needs to be
a predevelopment agreement with a detailed conception or plan of what would be
done by the developer to restore and maintain the creek, trails, and other open
space areas, along with plans for buffers, runoff, etc. In addition, a long-term
endowment must be in place to pay for maintenance. The city should not leave the
question of dedication open. A long-term management and endowment plan should be in place as a condition for approval. A Homeowner’s Association is not equipped to handle the complicated task of creek restoration, erosion issues, which may negatively impact the new homes, and maintenance. A Homeowner's Association may also restrict public access, as The Reserve has done and Mabury Ranch is proposing. Just because a plan sounds pretty, does not make it meet county standards.

In addition, all notifications of DEIR and public hearings should be mailed out to the community in official City of Orange envelopes, not third party consultant envelopes. Many of the notifications were likely discarded as junk mail, my neighbor's for example, as few people in the community are familiar with First Carbon Solutions.

It would be wonderful to have an end to the stockpiling and recycling operation on the Sully Miller Property. It would be a huge asset to our community to have public access to equestrian and walking trails in this area and a beautifully restored Santiago Creek. However, the issues listed above must be addressed. As currently proposed, I object to the certification of the RDEIR for the current proposal for The Trails at Santiago Creek.

Bonnie Robinson
bonanddon4@gmail.com
5907 E. Valley Forge Drive
Orange, CA 92869
Bonnie Robinson (ROBINSON 1)

Response to ROBINSON 1-1
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to ROBINSON 1-2
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

Response to ROBINSON 1-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to ROBINSON 1-4
Comment noted. Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to ROBINSON 1-5
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to ROBINSON 1-6
Comment noted. Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to ROBINSON 1-7
Comment noted. Please see Master Response 9—Soil Import/Export Numbers. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

Response to ROBINSON 1-8
Please refer to Response to SCGA-4.

Response to ROBINSON 1-9
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to ROBINSON 1-10
Comment noted. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Response to ROBINSON 1-11
Comment noted. Please refer to Response to FHBP-2.

Response to ROBINSON 1-12
Comment noted. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to ROBINSON 1-13
Comment noted. Impacts related to land use and planning are discussed in RDEIR Section 3.10, Land Use and Planning.

Response to ROBINSON 1-14
Comment noted. Please see Master Response 6—Stewardship of Open Space.

Response to ROBINSON 1-15
Comment noted. Commenter refers to the mailing of notices and reiterates opposition for the project. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
Dear Mr. Garcia,

Public Comments: Trails at Santiago Creek DEIR

PLEASE PROVIDE A RECEIPT/EMAIL CONFIRMATION THAT YOU RECEIVED MY COMMENTS AND INCLUDED THEM IN THE PUBLIC RECORD. Thank you.

1) I am opposed to the Trails at Santiago Creek proposed development. I support the preservation of the entire property as passive natural park and community agricultural open space, thus officially connecting Santiago Oaks Regional Park to the Orange County Water District (OCWD) recharge basins along the Santiago Creek floodplain. It is in the best interest of the City to respect the interests of current residents and preserve this undeveloped open space in perpetuity for the benefit of the entire community. "No build" is first choice. Alternative E is an acceptable compromise.

2) I request that the City deny approval of the DIER because it contradicts and ignores the public comments included in the NOP and the first circulation of the DEIR. The recirculated DEIR disrespects the concerns of citizens by downplaying significant impacts and ignoring the cumulative impacts brought about by existing and proposed developments within the Santiago Creek Watershed and City of Orange.

3) I request that the landowner/developer be held accountable and obliged to mitigate for the threatening/slanderous marketing campaign directed towards the community.

4) I request that the landowner/developer be held accountable and obliged to mitigate for the significant impacts (dust, truck traffic, obstructions to view, noise pollution) caused by the concrete recycling/mining/earth movement operation.

5) Appendix A: Notice of Preparation (NOP) and Comment Letters: Orange Park Association (OPA) commented, "because the NOP does not provide adequate information regarding the nature of the project and its probable environmental impacts, we respectfully request that the City revise and recirculate its NOP." I request that the City respect OPA's request and revise and recirculate its NOP.

6) 7.2.1: MM BIO-1a: 1. Please replace "On- and/or off-site restoration and/or enhancement" with "Onsite restoration and enhancement." All mitigation must be done onsite if it is to qualify as mitigation for the benefit local special status species. There is adequate acreage onsite to fulfill restoration and enhancement mitigation measures. If the developer determines that there is not enough acreage, then the project must be scaled back to guarantee that there is enough acreage onsite.

7) 7.2.1: MM BIO-1a: 1. Please remove "Off-site restoration and/or enhancement may include the purchase of mitigation credits at agency approved off-site mitigation bank supporting least Bell's vireo." All mitigation must done onsite.
8) 7.2.2: MM BIO-2: Please replace "and/or off-site restoration and/or enhancement" with "Onsite restoration and enhancement." All mitigation must be done onsite.

9) 7.2.2: MM BIO-2: Please remove paragraph beginning "If mitigation is to occur on-site and/or off-site..." because all mitigation must be done onsite. There are no suitable offsite mitigation locations that are not already receiving restoration or enhancements. There are already adequate funds directed towards mitigation restoration and enhancement projects related to other development projects.

10) 7000 acres of habitat for Least Bell's Vireo, CA Gnatcatcher and other special status species were burned within Santiago Oaks Regional Park, Irvine Regional Park, Peter's Canyon Regional Park and Irvine Ranch Open Space in the Canyon 2 Fire of 2017. This means that the proposed development site must remain undeveloped because it serves as vital habitat for special status species that are unable to secure habitat within the burned areas of the NCCP/HCP. Furthermore, the number of proposed dwellings must be significantly reduced to accommodate expanded onsite restoration and enhancements for displaced special status species.

11) My family has lived across the street from the proposed development site (Sully-Miller property) since 1987. At the time of our arrival, Cannon Street did not connect with Imperial Highway and Crawford Canyon Rd. Santiago Canyon College had not expanded. Santiago Hills Phase I began development. The Foothill Transportation Corridor did not exist. The Sully-Miller property sat vacant for over 10 years (roughly 1996 to 2008), which was appreciated by residents. Since 1987, the traffic congestion, dangerous speeding, air pollution and noise pollution have increased to unbearable levels and caused significant negative impacts to my family and other current residents living along Santiago Canyon Road. The City has not mitigated for this issue and has consistently approved road widening and road connection projects that accommodate non-residential commuters as the expense of residents. The City must mitigate for this serious issue. In neighboring Villa Park, along Villa Parl Road, the speed limit has remained 40 mph with no street lamps and fully landscaped medians dividing the road. Old Towne Orange also receives favorable treatment (preservation of historic resources, safe speed limits, development restrictions, etc.), which are not extended to residents of East Orange. Please prioritize your commitments to current residents of East Orange and protect your quality of life from the negative impacts of urban sprawl.

12) The proposed development must adhere to the highest standards of environmental sustainability (LEED certification), including off grid, natural/organic building materials, rain harvesting infrastructure, bioswales, 90% natural open space, permeable surfaces, walkable community design, public transit opportunities, 1-story limit, 450-1000 square feet floor plan limits, incorporation of equestrian infrastructure, no street lamps, no asphalt and locally appropriate native plants in all landscapes with no exceptions. The City must require and enforce a zero greenhouse gases policy that prevents the development from exacerbating the significant impacts that already exist from the mining/recycling/earth movement operation and current dangerous and polluting road conditions on Santiago Canyon Road.

13) A publicly accessible multi-use nature trail (dirt or decomposed granite) for hikers, mountain bikers and equestrians must parallel Santiago Creek, away from Santiago Canyon Road, connecting the OCWD Recharge Basins with Santiago Oaks Regional Park. This trail must mirror the trail design within Santiago Oaks Regional Park.

14) The paved Santiago Creek Bikeway must also extend through the property and connect the OCWD Recharge Basins with Santiago Oaks Regional Park.

15) 2.2.1 Avoidance Features PDF BIO-1: Please replace "The proposed project will permanently retain a minimum of 38 acres of open space located on both sides of Santiago Creek and bordered on the north by Mabury Avenue" with "The proposed project will permanently retain a minimum of 55.85 acres of open space located on both sides of Santiago Creek and bordered on the north by Mabury Avenue." Considering, the property is designated as open space on multiple plans AND the community defeated prior development proposals specifically to preserve the site as permanent open space, the city and the developer should set aside at least half the property as permanent open space. This compromise would be the minimum acceptable mitigation for the blatant betrayal the city and the developer have exhibited against the community's better interests.
16) 3.3.3 Special-Status Plant Surveys: Please add and survey for the additional species (bold print & highlighted in yellow) because they are known to occur within a mile of project site:

Specific-status plants include those listed by the USFWS, CDFW, and California Native Plant Society (CNPS) (particularly Ranks 1A, 1B, 2A, and 2B). The NCCP/HCP provides coverage for nine special-status plant species, termed "Identified Species." These species consist of two listed species and several non-listed species with various State and Federal listing status, including:

- southern california black walnut (Juglans californica var. californica),

Joel Robinson
5907 Valley Forge Dr.
Orange, CA 92869
714-938-8480


Joel Robinson (ROBINSON 2)

Response to ROBINSON 2-1
Comment noted. Commenter asks that he is notified of the receipt of his comment letter and that they have been included in public record. No further response is necessary.

Response to ROBINSON 2-2
Comment noted. Commenter states his opposition of the project and indicates the favorability of Alternative E. No further response is necessary.

Response to ROBINSON 2-3
Comment noted. Commenter states that previous comments have been ignored. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to ROBINSON 2-4
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to aesthetics are discussed in RDEIR Section 3.1, Aesthetics, Light, and Glare. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.

Response to ROBINSON 2-5
Comment noted. Please refer to Master Response 2—Adequacy of Project Description.

Response to ROBINSON 2-6
Please refer to Response CDFW-4.

Response to ROBINSON 2-7
Comment noted. Please refer to RDEIR Section 3.4. There will be no significant impacts to the Coastal California gnatcatcher. Furthermore, please refer to Response to SMW-39 related to least bell’s vireo.

Response to ROBINSON 2-8
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to ROBINSON 2-9
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to ROBINSON 2-10
Comment noted. Please refer to Response to OCPW-5.

Response to ROBINSON 2-11
Comment noted. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.
Dear Mr Garcia,

This e-mail says it loudly and clear. I agree totally that approval of the Trails of Santiago violate the CA planning and zoning laws. I respectfully request that you honor the findings of this letter and do the right thing by the citizens who are impacted by this proposed project.

Yours truly,

Howard Rothfeder,MD
1567 Willow Wood Circle
Orange, CA
THE RESERVE

-----Original Message-----
From: OPA e-Tree <d.brady@dmpilaw.com>
To: hrothfeder <hrothfeder@aol.com>
Sent: Fri, Dec 28, 2018 3:32 pm
Subject: Sully-Miller Public Comment Deadline is December 31, 2018
Like all concerned members of the public, Orange Park Acres relies on the environmental document required by California Environmental Quality Act (CEQA) for an honest and thorough assessment of the environmental impacts of a project such as Trails of Santiago Creek. The RDEIR's failure to provide that assessment undermines CEQA's core purpose. Here are some of the flaws of the RDEIR we have uncovered:

THE RDEIR VIOLATES THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

- The RDEIR's Flawed Project Description Does Not Permit Meaningful Public Review of the Project.
- The RDEIR's Analysis of and Mitigation for the Impacts of the Proposed Project Are Inadequate.
- The RDEIR Fails to Analyze or Mitigate the Project's Land Use Impacts.
  - The RDEIR Fails to Adequately Analyze the Project's Inconsistency with the City of Orange General Plan.
  - The RDEIR Fails to Adequately Analyze the Project's Consistency with the OPA and East Orange Plans.
- The RDEIR Fails to Adequately Analyze or Mitigate the Project's Impacts on Hydrology and Water Quality.
  - Water Quality Impacts.
  - Storm Drainage and Flooding Impacts.
- The RDEIR Fails to Adequately Analyze or Mitigate the Project's Impacts on Biological Resources.
  - Impacts to Wildlife Species.
  - Impacts to Federally Protected Wetlands, Streambeds and Riparian Habitat.
  - Cumulative Biological Resources Impacts.
  - Impacts Related to Tree Removal.
- The RDEIR Fails to Adequately Analyze or Mitigate the Project's Traffic Impacts.
  - Insufficient Information about "Entitled" Uses and Discrepancies Relating to the Amount of Earthwork Required to Prepare the Site for Development Make it Impossible to Verify the Accuracy of the Transportation Impact Analysis.
  - The RDEIR Fails to Adequately Analyze the Project's Roadway Safety Impacts.
- The RDEIR Fails to Adequately Analyze the Project's Construction-Related Air Quality Impacts.
- The RDEIR Fails to Adequately Mitigate the Project's Energy-Related Impacts.
- The RDEIR Fails to Adequately Analyze or Mitigate the Project's Consistency with Plans, Policies or Regulations Advertised for the Purpose of Reducing GHG Emissions.
The RDEIR Lacks Any Evidentiary Support that the Project Would Not Conflict with the City's General Plan Climate Change Policies.

The RDEIR Fails to Analyze the Project's Consistency With State Plans to Reduce GHG Emissions.

- The RDEIR Fails to Adequately Address the Project's Growth-Inducing Impacts.
- The RDEIR's Analysis of Project Alternatives Is Legally Inadequate.
  - The RDEIR Fails to Adequately Identify or Analyze a "No-Project" Alternative.
  - The RDEIR Fails to Evaluate a No-Project Alternative that Is Based on Current Plans.
- The RDEIR Must Consider Other Feasible Alternatives Capable of Avoiding or Substantially Reducing the Project's Significant Environmental Impacts.
- The RDEIR Must Be Recirculated.

**APPROVAL OF THE PROJECT WOULD VIOLATE CALIFORNIA PLANNING AND ZONING LAW.**

**Details of some of the Deficiencies**

Under CEQA the public may submit comments in response to the Recirculated Draft Environmental Impact Report (RDEIR). (Links to the RDEIR documents on the City website are listed at the bottom of this email).

If you sent a response to the original Draft Environmental Impact Report (DEIR) last April, we thank you, but that response doesn't automatically apply to this RDEIR - **YOU MUST SUBMIT NEW COMMENTS.**

**PLEASE SEND YOUR COMMENTS BY EMAIL AND/OR REGULAR MAIL TO THE FOLLOWING ADDRESS BY DECEMBER 31:**

Robert Garcia, Senior Planner
Email: rgarcia@cityoforange.org
Phone: (714) 744-7231

Robert Garcia, Senior Planner
City of Orange,
Community Development Department, Planning Division
300 E. Chapman Avenue, Orange, CA 92866
Trails at Santiago Creek - Recirculated Draft Environmental Impact Report

- Trails at Santiago Creek RDEIR
- App A - Pre-development Agreement
- App B - DEIR NOA and Comment Letters
- App C - NOP and Comment Letters
- App D - Orange Park Acres Association Fieldstone Letter
- App E - Santiago Creek Greenway Alliance Letter
- App F - AQ-GHG Supporting Information
- App G - Bio Resources Supporting Information
- App H - Cultural Resources Assessment
- App I - Geotechnical Investigation
- App J - Phase I and Phase II ESA
- App K - Hydro and Water Quality Reports
- App M - City of Orange SMARA Memo
- App N - Noise Analysis
- App O - Public Services Supporting Information
- App P - Traffic Impact Analysis
- App Q - Trails at Santiago Specific Plan
- The Trails At Santiago Creek Specific Plan - Final Draft 10.30.18
- Development Agreement - Trail at Santiago Creek -- with Exhibits

[Link: http://www.cityoforange.org/292/Project-NoticesRelated-Environmental-Doc]

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**OPA ANNUAL MEETING-SAVE THE DATE: January 19, 2019**

Due to room availability, the OPA Annual Meeting will take place one week earlier than normal-on January 19, 2019, at Salem Lutheran Church. The meeting time and agenda will be as usual-coffee and donuts starting at 8 am, meeting at 9 am, and election of Board members at 10 am. We will be sending out more details soon.
It is an honor to serve the Orange Park Acres Community. Thank you for your support and efforts.

- Don Bradley, President of Orange Park Association Board of Directors

PS: Note these dates:
December 31 - Comments for Recirculated DEIR for the Sully-Miller site are due
January 19, 2019 - OPA Annual Meeting

Orange Park Association

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Orange Park Association, P.O. Box 2293, Orange, CA 92859

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The RDEIR does not comply with the California Environmental Quality Act. A summary of the deficiencies follows:

**Inadequacies in the RDEIR’s Project Description**

The RDEIR’s Project Description lacks critical information about the site’s remediation. Because the City never required that a reclamation plan be prepared for the site’s aggregate mining operations, it is not possible to identify the scope of remediation that would be necessary to prepare the site for development.

- The RDEIR’s Project Description implies that backfilling (the excavation of unsuitable material associated with the previously mined portions of the site and replacement with fill) already occurred pursuant to a prior (2011) grading permit. Yet, according to the RDEIR’s technical appendix, the proposed Project will include grading permits to complete the backfilling of the previously mined portions of the project site.

- The RDEIR provides inconsistent information about the amount of clean soils that would have to be imported, and the amount of additional mine waste that would need to be exported in order to develop the proposed Project. The RDEIR Project Description states that the Project will require the import of 877,000 cy of clean materials and the export of about 500,000 cy of silty soils. The RDEIR appendix, however, identifies import/export figures that are substantially greater than that disclosed in the main text of the RDEIR. Appendix I identifies a total of 3,348,200 cy to be over excavated (2,248,200 cy will be exported and 1,100,000 cy will be imported).

- The RDEIR states that the Project’s construction activities will require up to 275,400 total haul trips during the grading period. RDEIR at 3.3-34. Yet, the number of truck trips would be substantially higher than this based on the import/export figures included in the RDEIR’s technical appendices. In order to evaluate the Project’s traffic, air quality, greenhouse gas and noise impacts, the revised EIR must clearly identify the import/export figures and truck trips required to prepare the site for Project construction.

- The amount of equipment need for site remediation and preparation will also vary depending on the amount of earthwork required. If the amount of earthwork is different than disclosed in the RDEIR’s project description, the RDEIR’s analysis of air quality, greenhouse gas, and noise impacts will require revision.
Because the RDEIR's Project Description provides such scant information, it is entirely unclear what actions must occur to ensure that the site can be made safe for human occupation. The Project Description omits any mention of the hazardous environmental conditions that exist on the Project site and does not disclose where houses will be developed to purportedly avoid contamination from: asbestos containing material; vapor intrusion of trichloroethylene; and methane; and Total Petroleum Hydrocarbons.

The appropriate first step to development should be the preparation of a reclamation plan. To date, the City has taken the position that no reclamation plan need be prepared because the Project site is not subject to Surface Mining and Reclamation Act of 1975 (SMARA). Yet, SMARA was enacted precisely to avoid this exact situation. Pub. Res. Code § 2710-2796. The Project site is known to contain hazardous and other contaminated materials and the applicant has been unwilling to describe the specific remediation measures necessary to protect public health, property and the environment. In addition to protecting the environment and public health, a reclamation plan prepared now, prior to Project approval, could protect the City because the scope of the effort to reclaim the site will be clearly established and the cost of the effort fully recovered before any development could occur.

The RDEIR's Project Description fails to include the required plans relating to public safety. The Project site is within the dam failure inundation area of Villa Park Dam and Santiago Dam. The Villa Park Dam (constructed in 1963) is located just 1.5 miles upstream of the Project site while the Santiago Dam (completed in 1931) is located about 1.3 miles upstream. The Project site is also highly prone to wildfire as it is located in the wildland urban interface, adjacent to the Santiago Oak Regional Park and the wooded Santiago Creek Corridor. Despite these threats, the Project Description does not include the required emergency evacuation or wildfire plans to protect public.

The RDEIR's Project Description defers key studies and plans relating to the restoration and long term management of Santiago Creek Corridor and other trails and open space. The County has made no commitment for long-term stewardship of the Project's open space grasslands and trails. The costs associated with restoration and maintenance of the Creek Corridor could well exceed the funding included in the Project.

Inadequacies in the RDEIR's Environmental Impact Analyses

- Transportation

It appears that the RDEIR substantially underestimates the Project's vehicular trip generation and therefore underestimates the Project's traffic impacts. The RDEIR takes credit for 686 daily trips associated with "backfilling" operations on the Project. In other words, the traffic analysis subtracts these 686 trips from the trips that would be generated by the proposed Project suggesting that the Project's net traffic would be 542 daily trips rather than 1,219 daily trips which is the number of trips that would be
generated by 128 houses. Based on numerous statements in the RDEIR and its appendices, it appears the trips associated with the backfilling operations are no longer occurring. If this is the case, the RDEIR cannot rely on this “trip credit” for purposes of calculating the Project’s trip generation or for purposes of analyzing the Project’s traffic impacts.

- The RDEIR ignores altogether the potential roadway safety hazards caused by the Project’s construction. By the RDEIR’s own estimates, the Project would result in 275,400 total haul trips during the grading period. While we question the accuracy of the RDEIR’s truck trip estimate, there is no logical explanation for the RDEIR to omit analysis of the effect these haul trucks would have on local roadways and intersections.

- **Land Use**

  - The RDEIR fails to adequately analyze the Project’s inconsistency with the City of Orange General Plan. The proposed Project would be directly at odds with the goals and policies relating to the preservation of the character and densities of residential neighborhoods, ensuring that hazardous materials dumpsites are cleaned prior to the establishment of new land uses, and ensuring that the City’s roads and intersections operate at acceptable service levels.

  - The RDEIR does not disclose that amending the OPA Plan and East Orange Plan to allow for the development of the Project would create inconsistencies with the City of Orange General Plan. Amending the specific plans would allow intensive development on lands that have long been planned for open space and park uses. In particular, both the OPA and the East Orange Plans call for phasing out the sand and gravel extraction operations on the Project site and creating a natural riparian area along Santiago Creek, together with proposed greenbelts, trails, recreation and open space areas.

- **Hydrology, Water Quality, Storm Drainage**

  - The RDEIR acknowledges the Project would create the potential for discharge of pollutants including Total Petroleum Hydrocarbons into downstream waterways but it fails to actually evaluate the effect that this contaminated discharge could have on water quality in these waterways. In addition, the document relies on vague and ineffectual mitigation measures and therefore offers no evidence that adjacent rivers would be protected from this contaminated runoff.

  - The Project site is located in an area with serious hydrologic constraints, as it contains 100-year and 500-year flood hazard areas. Storm drain facilities, including the Handy Creek storm drain, are already considered deficient. The Project has the potential to substantially increase runoff, posing flooding threats to downstream properties, but the RDEIR does not specifically identify the Project’s flood control system. Nor does the document describe how the Project would comply with the Regional Water Quality Control Board’s stormwater regulations.
**Biological Resources**

- The Project site provides suitable habitat for the Arroyo toad, yet the last surveys for this species were conducted about 10 years ago. The RDEIR must include up-to-date surveys for the toad. Without these surveys, the RDEIR lacks the evidentiary support that impacts to the toad would be less than significant.

- The RDEIR fails to adequately mitigate impacts to southern cottonwood riparian forest, CDFW jurisdictional streambed and associated riparian habitats. These sensitive communities are considered high priority for conservation by California Department of Fish and Wildlife.

**Project Alternatives**

- The RDEIR includes two no-project alternatives, both of which assume the continuation of sand and gravel operations on the project site. It is unrealistic however to assume that sand and gravel mining could continue on an on-going basis. Almost 25 years ago, the City determined that the extraction life of the aggregate mine was mostly depleted.

- The RDEIR considers a new alternative, the Collaborative Group Alternative, which consists of 47 lots and 47 dwelling units on approximately 40 acres. Although this alternative was determined to be environmentally superior to the Project itself, the RDEIR inappropriately rejects the alternative as infeasible incorrectly asserting that it would not achieve the Project Objectives.
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Howard Rothfeder (ROTHFEDER)

Response to ROTHFEDER-1

Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to land use and planning are discussed in RDEIR Section 3.10, Land Use and Planning.
The following comments are offered relative to the recirculated draft environment impact report regarding the proposed Trails at Santiago Creek project.

1. With consistent water supplies in the Southern California area in question for the long-term, why would the City consider any new residential development? When cutbacks in water use become mandatory, new residential units (and water demand) will only exacerbate the situation.

2. Conversely, the RDEIR does not adequately analyze the proposed project’s impact on storm drainage and flooding should drought or drought-like conditions disappear.

3. The RDEIR fails to adequately address impacts on existing wildlife within the site. It only considers a few federal or state protected species. Other deserve consideration because disruption to their habitat will undoubtedly have ripple effects throughout the surrounding environs.

4. The RDEIR fails to analyze land use impacts in the greater area: its inconsistency with the City’s General Plan as well as with OPA and East Orange Plan.

5. The RDEIR fails to provide sufficient information regarding hazardous materials that may be unearthed during proposed project preparation and construction. (In fact the current land-use of materials reclamation may be in violation of state laws.) Without such information no reasonable assessment of mitigation can be undertaken.

6. Point number 5, above, also impacts air quality during proposed project development.

7. The RDEIR fails to address or analyze impacts upon view shed and consequential financial impacts to existing Reserve and Mabury Ranch residences.

8. While the RDEIR does address traffic, the proposed mitigation efforts appear to only partially affect the proposed project construction period or the new post-project produced traffic. Existing traffic conditions around the proposed project site are borderline tolerable. The proposed project will only exacerbate these conditions.

9. For the above reasons, no new construction should be permitted on either side of Santiago Creek regardless of the current zoning. Should the materials reclamation operation on site resume in full, the City should strictly monitor operations and enforce existing state and local laws.

10. If the City Council feels some type of obligation (none that I can see) to approve a General Plan amendment and new zoning for the proposed site, it should be done as a binding one-time only event thus obligating future councils and be done with compatibility with surrounding development. Thus, approximately 25 to 40 one-acre single family lots.
Ron Rothschild (ROTHSCHILD)

Response to ROTHSCCHILD-1
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to ROTHSCCHILD-2
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to ROTHSCCHILD-3
Comment noted. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to ROTHSCCHILD-4
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to ROTHSCCHILD-5
Comment noted. Please refer to Appendix J, Phase I Environmental Site Assessment and Phase II Environmental Site Assessment. Furthermore, impacts related to hazards and hazardous materials are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials.

Response to ROTHSCCHILD-6
Comment noted. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to ROTHSCCHILD-7
Comment noted. Impacts related to aesthetics are discussed in RDEIR Section 3.1, Aesthetics, Light, and Glare. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Response to ROTHSCCHILD-8
Comment noted. Please refer to Response to SMW-17.

Response to ROTHSCCHILD-9
Comment noted. Please refer to Master Response 1—Plan Consistency and Master Response 7—Applicability of SMARA.

Response to ROTHSCCHILD-10
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
I am a home owner in Mabury Ranch and have major concerns with building on that property. Traffic is a nightmare during business hours and the idea of building next to a dump site has possible life threatening issues. My family is opposed to changing the zoning and it should remain open space. The city of Orange MUST consider public safety first and foremost and the thought of added traffic and the thought of public health issues over the mighty buck is irresponsible at best.

Greg Rush
6531 E. Mabury Ranch
Orange, Ca 92867

Sent from Yahoo Mail for iPhone
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Greg Rush (RUSH)

Response to RUSH-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to RUSH-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Jody Sadeghipour <jodysadeghipour@gmail.com>
Sent: Tuesday, December 18, 2018 3:47 PM
To: Robert Garcia
Subject: Proposed development: Trails at Santiago Creek

Dear R Garcia, I very strongly oppose the development called, "Trails at Santiago Creek," for the following reasons:

1. It will GREATLY affect traffic on Santiago Canyon Road and Cannon
2. Increased traffic, and congestion creates safety issues as recently witnessed in last year’s fires.
3. It will affect the future of the Specific Plan for Orange Park Acres as an Equestrian Community
4. The proposed plan is on a flood plain, next to a landfill that is prone to natural hazards.

The plan sets an extremely bad precedent for Orange and OPA.
It is a sweetheart deal for Milan (the builder). The City would be bailing out a bad business investment. If the parcel is "up zoned" the property value increases dramatically for Milan investors.
The City is not obligated to approve bad projects (this is a BAD project).
The City should not expose taxpayers to unnecessary liabilities.
Got
Existing plans (OPA Specific Plan) must be honored including the property right of existing residents.

Sent from my iPhone
Jody Sadeghipour (SADEGHIPOUR)

Response to SADEGHIPOUR-1
Comment noted. Please refer to Response to SMW-17

Response to SADEGHIPOUR-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to SADEGHIPOUR-3
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality. Impacts related to hazards and hazardous materials are discussed in RDEIR Section 3.8, Hazards and Hazardous Materials. Please refer to Master Response 4—Dam Safety and Risk of Failure.

Response to SADEGHIPOUR-4
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Response to SADEGHIPOUR-5
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: lwolfsandoval@netscape.net
Sent: Sunday, December 30, 2018 9:49 AM
To: Robert Garcia
Subject: I Oppose the Trails at Santiago Creek

Robert-

We oppose the current plan by Milan Capital for the development of the Trails at Santiago Creek. As a 23 year resident in OPA, the plan is inconsistent with the area and we feel will not enhance it.

We would support a plan that is consistent with the OPA plan, This is a unique area to the City of Orange as is Old Town. Please preserve this area of Orange. Traffic conditions on Santiago Canyon Road have made it almost dangerous for the equestrian crossing. Noise and traffic conditions along this street, even in an arena, spook the horses making it dangerous for both horse and rider.

We would support housing for larger / less density lots with equestrian zoning.

Thank you.

Laura & David Sandoval
7343 East Grovewood Lane
Orange, CA 92869
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Laura and David Sandoval (SANDOVAL)

Response to SANDOVAL-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition, Master Response 1—Plan Consistency, and Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.
Mr. Garcia,

We are writing to voice our concern with the proposed “Trails at Santiago Creek” project. Our community CANNOT withstand a project like this, with the magnitude of additional traffic it would create, not to mention change the feel and look of this still semi-rural community (something that is almost extinct in the rest of Orange County).

My husband and I both OPPOSE this development, “Trails at Santiago Creek.” And we hope that our voices, along with other concerned citizens of Orange, are heard.

Thank you for your time,

Amee and Scott Scigliano
Amee and Scott Scigliano (SCIGLIANO)

Response to SCIGLIANO-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Response to SMW-17.
Jim thanks for sharing your letter.

Hopefully everyone has read the SMW letter that was sent to the City in responding to the RDEIR. Here is a summary of the issues they focused on. There are many others issues. From the land use side it is very important to understand planning law, details and the impacts making the wrong decisions could have on our plan.

THE RDEIR VIOLATES THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

- The RDEIR’s Flawed Project Description Does Not Permit Meaningful Public Review of the Project.
- The RDEIR’s Analysis of and Mitigation for the Impacts of the Proposed Project Are Inadequate.
- The RDEIR Fails to Analyze or Mitigate the Project’s Land Use Impacts.
  - The RDEIR Fails to Adequately Analyze the Project’s Inconsistency with the City of Orange General Plan.
  - The RDEIR Fails to Adequately Analyze the Project’s Consistency with the OPA and East Orange Plans.
- The RDEIR Fails to Adequately Analyze or Mitigate the Project’s Impacts on Hydrology and Water Quality.
  - Water Quality Impacts.
  - Storm Drainage and Flooding Impacts.
- The RDEIR Fails to Adequately Analyze or Mitigate the Project’s Impacts on Biological Resources.
  - Impacts to Wildlife Species.
  - Impacts to Federally Protected Wetlands, Streambeds and Riparian Habitat.
  - Cumulative Biological Resources Impacts.
  - Impacts Related to Tree Removal
- The RDEIR Fails to Adequately Analyze or Mitigate the Project’s Traffic Impacts.
  - Insufficient Information about “Entitled” Uses and Discrepancies Relating to the Amount of Earthwork Required to Prepare the Site for Development Make it Impossible to Verify the Accuracy of the Transportation Impact Analysis.
- The RDEIR Fails to Adequately Analyze or Mitigate the Project’s Consistency with Plans, Policies or Regulations Adopted for the Purpose of Reducing GHG Emissions.
  - The RDEIR Lacks Any Evidentiary Support that the Project Would Not Conflict with the City’s General Plan Climate Change Policies.
The RDEIR Fails to Analyze the Project’s Consistency With State Plans to Reduce GHG Emissions.
The RDEIR Fails to Adequately Address the Project’s Growth-Inducing Impacts.
The RDEIR’s Analysis of Project Alternatives Is Legally Inadequate.
  - The RDEIR Fails to Adequately Identify or Analyze a “No-Project” Alternative.
  - The RDEIR Relies on Incorrect Land Use Designation Acreages in its Evaluation of Alternative 1.
  - The RDEIR Fails to Evaluate a No-Project Alternative that Is Based on Current Plans.
The RDEIR Must Consider Other Feasible Alternatives Capable of Avoiding or Substantially Reducing the Project’s Significant Environmental Impacts.
The RDEIR Must Be Recirculated.

APPROVAL OF THE PROJECT WOULD VIOLATE CALIFORNIA PLANNING AND ZONING LAW.

In addition please remember the Sully Miller site is NOT designated for houses but clearly designated Open Space/Santiago Greenbelt Plan. Clustering houses on Sully Miller was NEVER part of our plan.

In the OPA Specific Plan there are four land use classifications.

The Land Use element of the OPA Plan spells out the four land use classifications in our plan:
1. Medium Density (including Frank and Clark Streets, part of the 1929 Tract No.918)
2. Medium-Low Density (this included the 3 clustered communities settled in the 1973 OPA Plan: Wilderness, Broadmoor and Pheasant Run)
3. Low Density - One-Half Acre (included are a few one-half acre lots in OPA, some pre-OPA 1973 Plan)
4. Low Density - One Acre (all the remaining lots became part of the one acre minimum lot requirement)

Low Density – One Acre
This category covers 708 gross acres of the Orange Park Acres area and provides for a minimum one-acre lot size for a maximum density of one dwelling unit per acre the maximum number of dwelling units and density is shown by each sector on table #21 (dwelling unit density). This density category includes many lots, 1 acre and over in size, and the maximum number of lots accounts for “lot splits” for each of the larger lots down to 1 acre in size. Therefore, if a five acre lot is not divided and only one house occupies the lot, it would account for five of the dwelling units allowed within the area. Only one single-family detached structure is allowed per lot. It is recommended that the E-4-1 zoning as described in the Orange County zoning code apply to this residential area.

The OPA Plan does NOT have a Low Density Cluster classification.

From the SMW letter:

(a) The RDEIR Fails to Adequately Analyze the Project’s Inconsistency with the City of Orange General Plan.
Instead, the RDEIR concludes, without any evidentiary support, that the Project would be consistent with these policies because it would be “compatible” with surrounding uses. RDEIR at 3.10-12; 3.10-13. Specifically, the document asserts that the Project “promotes land use compatibility with surrounding residential development by clustering the new dwelling units on 40 acres of the site.” RDEIR at 3.10-13. **This statement is incorrect and deeply misleading.** It is this very clustering—and specifically allowing more than 3 dwelling units per acre—that makes the Project incompatible with surrounding neighborhoods. 

This area of Orange is characterized by a unique rural environment with low density development. The properties in Orange Park Acres are designated Estate Low Density Residential, which allows only 0-2 dwelling units per acre with the majority of OPA zoned R-1-40. General Plan at LU-25. The proposed Project’s density would far exceed surrounding densities and thereby permanently change the character of the area. Because the RDEIR lacks any basis to conclude the Project would be compatible with surrounding areas, it must be revised to correct the error—and to acknowledge that the Project’s inconsistency with the General Plan constitutes a significant environmental impact. *See Pocket Protectors*, 124 Cal.App.4th at 929.

It is also important to emphasize that the General Plan currently designates more than one-half the Project site as Resource Area. According to the General Plan, the Resource Area designation provides that the site “[m]ay serve as a holding zone for future uses compatible with established and planned land uses in surrounding areas.” General Plan at LU-16. For decades, residents have relied on the City’s land use constitution, including this statement and the designation of Sully Miller as “open space”, when supporting development in the surrounding neighborhoods. If the City amends the General Plan to remove this long-held designation, it would renege on its promise to provide for balanced growth that preserves the unique rural character of this area.
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Theresa Sears (SEARS 1)
This comment letters references issues raised in the Shute Mihaly & Weinberger (SMW) letter. Therefore, the responses below point the reader to the relevant responses to the SMW letter.

Response to SEARS 1-1
Please refer to Master Response 2—Adequacy of Project Description, as well as responses to SMW-4 through SMW-12.

Response to SEARS 1-2
Please refer to SMW-13.

Response to SEARS 1-3
Please refer to SMW-14 through SMW-21.

Response to SEARS 1-4
Please refer to SMW-22 through SMW-31.

Response to SEARS 1-5
Please refer to SMW-32.

Response to SEARS 1-6
Please refer to SMW-33 through SMW-42.

Response to SEARS 1-7
Please refer to SMW-43 through SMW-46.

Response to SEARS 1-8
Please refer to SMW-50 through SMW-52.

Response to SEARS 1-9
Please refer to SMW-54 and SMW-55.

Response to SEARS 1-10
Please refer to SMW-56 through SMW-58.

Response to SEARS 1-11
Please refer to SMW-59 through SMW-61.

Response to SEARS 1-12
Please refer to SMW-62 through SMW-71.

Response to SEARS 1-13
Please refer to SMW-72.

Response to SEARS 1-14
Please refer to Master Response 1—Plan Consistency

Response to SEARS 1-15
Please refer to SMW-15 through SMW-18.
Response to SEARS 1-16

Please refer to SMW-15 through SMW-18.
December 31, 2018

Robert Garcia  
Senior Planner  
City of Orange  
300 East Chapman Avenue  
Orange, CA 92866

Re: Sully Miller site – Recirculated Draft Environmental Impact Report for Trails at Santiago Creek proposal

Dear Mr. Garcia,

On April 19, 2018 the City appointed Sully Miller Liaison Committee submitted a letter (Exhibit 1) that included the following:

Lack Of Cooperation with Liaison Committee

The Preface to the DEIR indicates that ‘For the last 10 months, the City, Applicant and community representatives from OPA, Mabury Ranch HOA and The Reserve HOA have worked together in addressing these concerns, as well as other related matters.” If only that sentence were true. Community representatives attended those meetings for the explicit purpose to come to an agreement and avoid the necessity of one-day writing this letter opposing the proposed development. Unfortunately, the Applicant has not obtained community approval. Rather, once again, the Applicant is acting unilaterally in the hopes it can steamroll over community opposition.
I cannot take credit for the above paragraph as it was written by other committee members, but this sentiment still rings true today. Milan continues to mislead the public and decision makers and dismisses the real concerns of the community.

By way of background I have been involved in the Sully Miller site since 1999. I actively participated in the Fieldstone and the Rio Santiago proposals. I understand why each project was rejected. I have also been involved in land use, conservation, and regional public benefit issues in Orange County for over 25 years. I’ve been engaged with my community and have an appreciation for Orange Park Acres, its unique character, history, the reason it has thrived for 90 years and why it must be protected.

The premise of this RDEIR is inaccurate and misleading at almost every turn. It conveniently leaves out key and historical information. It does not accurately inform the public, staff or decisions makers. It reads more like a PR campaign trying to promote Milan’s 128-unit project versus the document of accountability it is supposed to be. It is impossible to get a true and honest picture of the issues, concerns and constraints that are implicated in this project.

The community character and surrounding neighborhoods that will be impacted should be accurately described and readily available. This information is not in the RDEIR nor is the proposed zoning map. You have to go searching for this information to understand the actual zoning that is being proposed. The average person is not going to know that this basic information is contained in Trails of Santiago Creek Specific Plan. First off the Community Character Summary Map – Exhibit 3.2 is incorrect, as it does not have the correct boundaries for Orange Park Acres. It is important not to mislead the public. It should be replaced with Exhibit 2 Corrected Community Character Summary.

More disturbing is Exhibit 3.3 Surrounding Neighborhoods With Lots Less than 1-Acre. This exhibit fails to recognize that over half of the Sully Miller site is in the OPA Specific Plan and should be compared to neighborhoods in OPA that are primarily one-acre lots not other neighborhoods. The analysis for the portion that is within the OPA Specific Plan should be based on OPA. This map should be replaced with Exhibit 3 Corrected Surrounding Neighborhoods With Lots Greater Than 1-Acre.
This accurate map should be included to reflect the R-1-40 zoning (Low Density – One Acre classification) in the Orange Park Acres Specific Plan.

The Low Density – One Acre category covers 708 gross acres of the Orange Park Acres area and provides for a minimum one-acre lot size for a maximum density of one dwelling unit per acre the maximum number of dwelling units and density is shown by each sector on table #21 (dwelling unit density). This density category includes many lots, 1 acre and over in size, and the maximum number of lots accounts for “lot splits” for each of the larger lots down to 1 acre in size. Therefore, if a five acre lot is not divided and only one house occupies the lot, it would account for five of the dwelling units allowed within the area. Only one single-family detached structure is allowed per lot. It is recommended that the E-4-1 zoning as described in the Orange County zoning code apply to this residential area.

The RDEIR fails to adequately address the project’s growth-inducing impacts that could change Orange Park Acres forever. There is no mention or analysis of this in the RDEIR. If this current proposal is approved a new precedent will be set as the OPA Plan will need to be amended from the current Open Space designation to allow for a higher density than is allowed under the “minimum one-acre lot size for a maximum density of one dwelling unit per acre, only one single-family detached structure is allowed per lot” standard. The Open Space vision will be forever lost and the higher density threat will become a reality. Changes such as these that appear harmless are the reasons equestrian communities cease to exist.

The Orange Park Acres Specific Plan has designated the portion of the Sully Miller site that is in OPA as Open Space – Santiago Greenbelt Plan. The origins of that designation was first made in August of 1971 by the Orange Park Acres Planning Committee (Exhibit 4) and adopted in the 1973 plan. The vision for the Santiago Greenbelt Plan has been slowly achieved over the last 45 years. The properties owned by the Rinker and Blome were not sold to developers but were acquired by the County of Orange and became Santiago Oaks Regional Park. The community did not support houses on Barham Ranch and battled to save it from being bulldozed and developed into 600 homes. It is now part of Santiago Oaks Regional Park. The County also acquired for the Greenbelt the backside of Oak Lane that was owned by Sully Miller as well.
This RDEIR dismisses and discounts Orange Park Acres, its history and the true character of OPA. The RDEIR fails to properly set the stage and tell the truth. Because of these obvious fundamental errors and misrepresentation of information throughout, the document is flawed and cannot be relied on.

In 2015, I was appointed by the City Council to the Sully Miller Liaison Committee. From the beginning our committee was clear with the applicant as to what we would tolerate by way of development. During the 2017 NOP process the Liaison Committee submitted Alternative Plan E, a plan that would be acceptable to the Committee (Exhibit 5). In good faith, we agreed to a Pre-Development Agreement (PDA) in the hopes of moving forward an acceptable project.

The Liaison Committee worked to define what would be allowed on the Sully Miller site based on the community plans that govern the area. Unfortunately the applicant has minimized and misunderstood the constraints of the property and instead focused solely on number of houses and getting zoning entitlements. In this RDEIR the applicant has not disclosed the true impacts of the project, which may be impossible to mitigate. CEQA provides legal remedies to the public so that in the future they are not forced to deal with deferred problems. CEQA does not rely on promises and the “trust us” position used by Milan.

I have reviewed the Recirculated Draft Environmental Impact Report (RDEIR) for the Trails at Santiago Creek proposal. The RDEIR is disappointing as it is deficient in most areas and it does not meet California Environmental Quality Act (CEQA) standards as defined by the State of California.

The initial DEIR that was circulated on February 23, 2018 missed the mark and certainly could not be certified. This RDEIR was expected to evaluate those flaws and potential significant environmental effects of the proposed project and present reasonable alternatives but it failed in both regards.

Impacts are determined through comparing the existing conditions at the project site and surrounding region taking into consideration the reclamation plan, expected construction activities and post-project conditions. The goal is to avoid potential significant impacts of surrounding communities and be consistent with existing planning documents. This RDEIR has not achieved those goals.
The information provided in this poorly constructed document does not provide the public and decision-makers the needed information to perform an adequate impact analysis of whether this proposal is appropriate or even safe for this site.

In 2017, during the Notice of Preparation period community members complained that it is impossible to understand the true scope of the proposal because of the flawed project description. Many were frustrated at the scoping meeting because of lack of disclosure and detail. Rather than taking the community input seriously those comments were disregarded by Milan.

The fundamental issue people are concerned with is the remediation of the abandoned Sully Miller Sand and Gravel Mine. This has been the elephant in the room that the landowner refuses to address. The city has failed to adopt a surface mining and reclamation ordinance and at the same time refuses to require compliance with the State Surface and Mining Reclamation Act (SMARA). Whether it is Fieldstone, Rio Santiago or this new project the notion that SMARA doesn’t apply is not a “get out of jail free card” as the site still must be remediated and the environmental impacts of that effort must be properly disclosed. That has not been done. There is no reliable framework in place, with independent expert oversight, that defines the required reclamation effort needed to guarantee the site is safe for humans to inhabit. It should also be noted that Milan’s backfilling operation has only complicated the issue and added another layer of concern. This conundrum, if not properly addressed, may create serious short and long-term liability for the city. What you resist, persists.

The Sully Miller Company achieved the highest and best use of this property years ago through its sand and gravel operation. That operation has not been remediated.

It is important to include the accurate history so that the public and decision makers understand the long-term vision for this site and history:

- The 109-acre aggregate mining property known as Sully Miller has been used for resource extraction for nearly 100 years. Mining activities occurred on-site from 1919 to 1995 and consisted of surface mining of sand and aggregates. The General Plan designated the site Resource with the zoning sand and gravel.
In the early 70s three plans were approved: Santiago Creek Greenbelt Plan (First printing - March, 1971), Orange Park Acres Specific Plan (1973) and the East Orange General Plan (1975). All of these plans designated the Sully Miller as Open Space – “Santiago Greenbelt Plan” or “Regional Park” once the extraction life was depleted.

Background on the 12.6 acres North of the Creek adjacent to Mabury Ranch: On May 18, 1993 the city Council approved a General Plan Amendment (GPA 2-93), Zone Change and Tentative Tract Map to allow the 12.6-acre site north of the creek to be subdivided for a 25 dwelling unit development (Exhibit 6 -Resolution No. 8182 and Exhibit 7 -Tract Map No. 14747 showing the 25 homes that were approved). The General Plan changed the land use designation from R-A (Resource Area) to LDR (Low-Density Residential) and the zoning classification for SG (Sand and Gravel) to R-1-8. The tentative tract map expired in 2000. Only 12.6 acres is zoned for residential. Any increase in the 12.6 acreage would require a zone change, which is a legislative action.

Background on the Fieldstone proposal: In 1999, Fieldstone proposed a 189-unit housing tract, which included 18 homes north of the creek adjacent to Mabury Ranch. The City Council approved the project in 2003. Citizen gathered the needed signature to qualify the referendum for the ballot. The City Council rescinded their vote, which reversed all the approvals.

Background on the Rio Santiago proposal: In 2009, Santiago Partners proposed a 450+ high-density project and finally settle on 395 units. No homes were proposed north of the creek. Citizens objected to the proposal. In 2014 the City Council denied the project.

The RDEIR uses incorrect information in Alternate 1 - Development within the Existing Land Use Designation. This alternative assumes 77 units on 15.4 acres.
This is in direct conflict of Resolution 8182 and Tentative Tract Map 14747 showing 25 units. The analysis is flawed to assume 77 homes is feasible based on the constraints of the creek, surrounding community, safety & building requirements and federal and state regulations that could limit the number of homes that could reasonably be built. The Alternative needs to analyze building 18 - 25 homes on 25 acres.

Under CEQA, an agency may not approve a proposed project if a feasible alternative exists that would meet a project’s objectives and would diminish or avoid its significant environmental impacts. An alternative need not meet every Project objective or be the least costly in order to be feasible. Alternate 1 - Development within the Existing Land Use Designation may be feasible at 25 units and may substantially reduce the Project’s environmental impacts. Consequently, approval of the Project, or any alternative project with greater impacts than these alternatives would violate CEQA.

The Collaborative Alternative map that was created should be included and properly labeled as the Liaison Committee (Exhibit 7). This alternative must also be analyzed properly.

A reasonable range of alternative plans was not considered.

Alternative E (Exhibit 8) submitted by the Liaison Committee in 2017 and included in the Pre-Development Agreement was not analyzed. Alternative E would allow for 25 homes on 25 acres with the balance open space and/or agricultural. It should be analyzed.

Because of the flawed project description it is impossible to understand the true scope of the proposal and the impacts. The RDEIR fails to analyze key issues:

- The RDEIR is relying on conflicting information. Prior city staff reports, parcel maps and historic maps do not support the maps and acreage designations throughout the RDEIR document. Please correct using the following information or provide verified data showing why this information is not correct:
Orange Park Acres Specific Plan and East Orange Plans  
- 56 acres - Orange Park Acres Specific Plan  
- 40 acres - East Orange General Plan  
- 12.6 acres - R-1-8 (north of the creek)  
- 26.4 acres - OS (Open Space)  
- 70.0 acres - RA (Resource Area)

- The RDEIR does not analyze the inconsistency with the 1973 Santa Ana River/Santiago Creek Greenbelt & 1976 Santiago Creek Implementation Plans. Explain why these plans are not being honored and why that the habitat will not be restored entirely with native plants. Those details are not provided.

- The RDEIR Fails to Adequately Analyze the Project's Consistency with three long standing land use plans all adopted by the City of Orange: the Orange Park Acres Specific Plan, Santa Ana River/Santiago Creek Greenbelt Plan and the East Orange General Plan. Committees representing homeowners, major landowners, developers, and City and County governments carefully conceived all of these plans. Both the OPA and the East Orange Plans designate nearly 96 acres as open space. The RDEIR is inconsistent with the Orange General Plan, the Orange Park Acres Specific Plan and the East Orange General Plan. These plans were created for a reason, to ignore them now simply opens the door to a contentious and litigious future, wherein the status of the property remains unresolved. These plans have already determined the property's status; let them stand.

- The very limited information in the RDEIR leaves numerous questions and omissions concerning key aspects of the project and does not provide needed information for public review. No Major Site Plan (MSP) has been provided. A MSP needs to address the conceptual design of Santiago Creek, it's alignment, width, depth, proposed vegetation, bottom configuration, etc. to address flood control considerations, aesthetic considerations, trail design, how it interacts with water quality management (WQMP) design, and freeboard protection. What will be the creek edge treatment? Will it be natural? Those details are not provided.
• There is not analysis or outline of how this proposal will avoid using any Statements of Overriding Consideration.

• The RDEIR does not provide the true impacts to the creek. The details of how the creek will be treated are not analyzed. Will it be channelized? There is no creek plan or any details provided.

• The RDEIR does not provide a comprehensive analysis and the potential impacts of the runoff that would be created during pre and post construction created by the project. Would it contribute substantial runoff, which would be an additional source of polluted runoff? Those details are not analyzed.

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow of the creek in a manner that would result in substantial erosion, siltation, or flooding, either on or off-site? Those details are not analyzed.

Would the project have a negative impact on underground water quality? Those details are not analyzed either.

This proposal is located adjacent to the former Villa Park Landfill. Site excavation could result in the releasing of methane and other hazardous gases. In addition this site may contain hazardous materials that could create serious problems for the environment and the public.

This property is also located in a dam inundation zone 1.25 miles from the Villa Park Dam, an earthen dam. The RDEIR is not correct when it says, “at least one staff person from the Orange County Flood Control District is stationed at each facility [Villa Park Dam] 24 hours a day, 7 days a week to monitor dam and reservoir conditions. … and would be able to identify and respond to indications of adverse conditions; initial alerting of a dam failure would come from these dam keepers.” This is not accurate as no one lives at the Villa Park Dam anymore. A thorough analysis must be completed delineating the potential impacts and how they will be handled including dam failure and potential liability the City may have due to inundation and landfill gases. Those details must be disclosed.
These following safety concerns have not been properly addressed:

- Would the project result in substantial soil erosion or the loss of topsoil, creating substantial risk to the creek? Those details are not provided.
- Would the unstable soil conditions cause further liquefaction, landslides and/or soils problems that could be a risk to life or property? Those details are not provided.
- Identify the fill areas and the areas where silt has been dumped. What is the remediation plan? Those details are not provided.
- Define the plan for this site that will legally comply with the Surface Mining and Reclamation Act (SMARA) and all associated regulations. Those details are not provided.

In 2008, the applicant destroyed several acres of trees and habitat on this project site. This destruction may have interfered with native resident or migratory fish or wildlife species. These actions have reduced confidence that the developer will honestly comply with Federal and State environmental regulations. In addition the City of Orange, County of Orange and various agencies have signed on to the Habitat Conservation Plan and Natural Community Conservation Plan. That history and protocol must be included so that the public and decision makers have the needed information to perform an adequate impact analysis.

The RDEIR evaluation fails to address the following concerns:

- Would this habitat destruction be in violation of the HCP/NCCP regional conservation agreements? Those details are not provided.
- Would the project protect biological resources, including the wetland, riparian habitats and trees? Those details are not provided.
- There are several threatened or endangered species, gnatcatcher, the Least Bell's Vireo, Arroyo Toad, and the Southwest Pond Turtles that may be on this site. Would there be substantial degradation to their riparian and aquatic habitat through discharging a substantial amount of pollutants into a creek; significantly modifying the natural flow of the water;
depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat; changing of the land forms; impacts because of grading? Those details are not provided.

- What is the plan for the restoration of the original topography and vegetation? Those details are not provided.

- The creek has been diverted and should be restored to its natural route. How will this be achieved? Those details are not provided.

- What Urban Water Management Plan does this project rely on and is it adequate? Those details are not provided.

- What are the true impacts of wastewater and storm water? Those details are not provided.

- Noise impacts on species must be analyzed; a noise study should be prepared to examine all the potential noise impacts.

- Would the project result in a substantial increase in diesel emissions? Those details are not provided.

- What would be the impacts of the mass grading to surrounding neighborhoods? Those details are not provided.

- Would the long-term emissions associated with the vehicle trips and energy consumption created by this project result in the production of excessive air pollutants? Those details are not provided.

- What is the AB 32 (Global Warming Act) compliance plan? A qualified, independent expert should prepare a detailed analysis of potentially significant air quality impacts. Those details are not provided.

The applicant should retain experts to peer review all technical reports submitted for the RDEIR. Independent biologists and hydrologists should analyze impacts
to water quality, development and site alterations on species, all subject to peer review. All agency approvals and permits, U.S. Fish and Wildlife Service, Department of Fish and Game and the U.S. Army Corp of Engineers, must be obtained prior to any local approvals.

The traffic studies are outdated and should include an expanded study area. The RDEIR is deficient in its traffic analysis and safety issues. It must include the evaluation of the impacts of the construction phase including the cumulative projects in the area and an analysis of the permanent project. This must also include a reliable reclamation plan, the truck trips required to haul out and bring in needed dirt and the routes.

This analysis should include resident, visitor, services, recreational users, emergency and any others that might frequent this development. In addition facilities supporting alternative transportation must be considered: bus turnouts, bike trails and racks, horse crossings, staging areas, hitching posts, bus parking, RV parking, overflow parking, emergency ground vehicle access and an emergency helicopter landing the event of a road closure or emergency. Air traffic patterns would need to be considered and any related safety risks. Cumulative impacts of existing traffic must be analyzed. A backup plan must be designed in the event that Santiago Canyon Road is not accessible due to historical closures because of fires, power outages and fatal accidents in the area.

An evacuation plan must be included.

The RDEIR does not identify who will manage and/or own the open space land. It does not analyze what it will cost to reclaim the land but instead it offers a Preliminary Landscape Opinion of Probably Costs of $4.1 million. We have no idea if that amount of money is adequate. Milan offers the icing on the cake but refuses to disclose how the cake will be made or if the flavor of the icing even is appropriate for the cake. This is a major flaw.

The RDEIR does not adequately analyze the cumulative impacts of this project and other related past, present and probable future projects. Mitigation measures and alternatives must be presented for all potentially significant impacts (including potentially significant cumulative impacts). Those details are not provided and disclosure of that information should not be deferred.
Trails at Santiago Creek RDEIR
December 31, 2018

The City of Orange states that the goal is to “better define its image and position within the region, maintain and reinforce existing neighborhood values, address local and regional environmental issues, and provide a better quality of life for the citizens of Orange.” This project conflicts with City goals and the vision of those who worked for years on the Santiago Greenbelt Plan. We should respect and honor the vision of those that had the foresight to designate this area open space on the land use plans that have served us so well. This project conflicts with the city-adopted OPA Specific Plan and the East Orange General Plan as well as the City of Orange General Plan. The RDEIR is deficient on many levels and inadequate under CEQA. It needs to be withdrawn.

I appreciate the opportunity to comment on this RDEIR and I welcome any questions. Please note that Appendix L – Land Use Background was not posted on the City website and thus unavailable to the public.

Please include this letter in the official record of proceedings for the project and include me in any future notifications related to the Trails at Santiago Creek proposal.

Sincerely,

Theresa Sears

Attached Exhibits included:

Exhibit 1 - 040918Liaison Committee DEIR letter
Exhibit 2 - Corrected Community Character summary
Exhibit 3 -Corrected Surrounding Neighborhoods With Lots Greater Than 1-Acre
Exhibit 4 - August 1971 Santiago Greenbelt Plan
Exhibit 5 - Alt. Plan E Liaison Committee 2017
Exhibit 6 - 1993 Resolution 8182 Mabury Ranch zoning 12.6 acres R-1-8
Exhibit 7 - 1993 Mabury Ranch Tract Map No. 14747
Exhibit 8 - Sully Miller Liaison Committee Alternative
Theresa Sears (SEARS 2)

Response to SEARS 2-1
The commenter expresses frustration with the lack of coordination with the Liaison Committee and a lack of historical information in the RDEIR. RDEIR Section 2, Project Description, subsection 2.3.1, includes a summary of the project site history and public outreach activities that have occurred.

Response to SEARS 2-2
The commenter refers to inaccuracies in Figure 3.2, Community Character Summary Map, which is part of the Applicant’s Specific Plan, not the RDEIR.

The line on the General Plan exhibit denotes the area that is unincorporated. The Orange Park Acres Plan limits covers even more area than shown (it includes the Reserve and the project site for example).

Response to SEARS 2-3
The commenter refers to inaccuracies in Figure 3.3, Surrounding Neighborhoods with Lots Less than 1-acre, which is part of the Applicant’s Specific Plan, not the RDEIR. RDEIR Section 2, Project Description, Exhibit 2-5, includes similar information and highlights Lots that are smaller than 10,000 square feet in size. As shown, the northernmost Lots in Orange Park Acres that front East Santiago Canyon Road, are predominantly less than 10,000 square feet in size. Exhibit 2-5g provides additional information regarding lot sizes in this area.

Response to SEARS 2-4
The commenter recommends a lower density zoning for the project site (the commenter specifically requests a density that aligns with the County’s E-4-1 zone; 1-acre minimum) than what is proposed by the project (R-1-8 and R-1-10; 8,000 to 10,000 square feet).

The impacts associated with implementation of the project, including the proposed General Plan Amendments and rezoning, are evaluated in the RDEIR. The Planning Commission and City Council will evaluate the proposed project, including the proposed General Plan Amendments and Rezoning, and will consider information provided by the public regarding a preference for lower density.

Response to SEARS 2-5
The RDEIR acknowledges that the surrounding area is already developed with infrastructure and housing. RDEIR Section 2, Project Description, Exhibit 2-5 depicts the location of Lots less than 10,000 square feet in size, which surround the project site to the northwest and southwest. The Reserve Community to the east is, as the commenter points out, comprised of larger lots (20,000-44,000 square feet). It should be noted that the Reserve Community is currently bordered by smaller lots to the south, which has not resulted in requests for subdivision. Any such application would have to undergo environmental review and processing by the City of Orange. Additionally, please refer to Response to SMW-54.

Response to SEARS 2-6
Please refer to Master Response 1—Plan Consistency

Response to SEARS 2-7
Please refer to Master Response 1—Plan Consistency
Response to SEARS 2-8
Please refer to SMW-33 through SMW-42.

Response to SEARS 2-9
Please refer to Master Response 2—Adequacy of Project Description.

Response to SEARS 2-10
Please refer to Master Response 7—Applicability of SMARA.

Regarding Furthermore, Mitigation Measures HAZ-2a and HAZ-2b are refined to clarify the remediation actions needed to meet the requirements of the DTSC, including methodology and performance standards for additional sampling. Please refer to Section 4: Errata for the refined language of these measures.

Response to SEARS 2-11
The commenter provides background information on the sand and gravel operations. RDEIR Section 2, Project Description, provides background related to the prior operations and prior development proposals for the site.

Response to SEARS 2-12
The evaluation of Alternative 1 is based on developing the existing 15.4 acres north of Santiago Creek according to the existing zoning (R-1-8, 8,000 minimum lot size). The range of 18-25 units on 25 acres, as suggested by the commenter, appears to suggest a new zoning designation for the site.

Please also see Master Response 3—Analysis of Alternatives.

Response to SEARS 2-13
Please see Master Response 3—Analysis of Alternatives.

Response to SEARS 2-14
The Collaborative Alternative map is included as Exhibit 5-2 in RDEIR Section 5, Alternatives to the Proposed Project.

Response to SEARS 2-15
Please see Master Response 3—Analysis of Alternatives.

Response to SEARS 2-16
Please see Master Response 3—Analysis of Alternatives.

Response to SEARS 2-17
RDEIR Section 3.10, Land Use, Exhibit 3.10-1, depicts approximately 37 acres of the proposed project that is within the East Orange General Plan. This land use acreage is provided by the City of Orange and based upon 1989 General Plan Land Use Map. RDEIR Exhibit 3.10-2 depicts approximately 39 acres of the proposed project that is within the Orange Park Acres Plan. This land use acreage is provided by the City of Orange and based upon 1989 General Plan Land Use Map. RDEIR Section 2, Project Description, Exhibit 2-7 shows approximately 11.6 acres zoned R-1-8, as per the City of Orange (July 15, 2016). As discussed in RDEIR Executive Summary, page ES-8; RDEIR Section 2, Project Description, page 2-12, and depicted in RDEIR Section 2, Exhibit 2-6, City of Orange General
Plan Land Use, 77.3 acres is designated Resource Area (RA) and approximately 16.5 acres is designated as Open Space (OS).

Response to SEARS 2-18
Please refer to Master Response 1—Plan Consistency. Furthermore, refer to RDEIR Appendix Q, Trails at Santiago Specific Plan, pages 4-12 to 4-13 for a description of open space environs and intended restoration. Refer to pages 6-13 to 6-15 for a description of the open space enhancement and refer to Table 6.1, Plant Material Palette, for plant species.

Response to SEARS 2-19
Please refer to Master Response 1—Plan Consistency.

Response to SEARS 2-20
As noted in RDEIR Appendix A, Pre-Development Agreement, the Applicant will submit an application for land use entitlement approvals that include a General Plan Amendment, Zoning Change, Major Site Plan Review, Design Review, CEQA compliance, Development Agreement, Park Planning and Development Committee consideration of project trails, and commitment by the City to expeditiously process these entitlements while complying with all legal requirements.

Response to SEARS 2-21
Pursuant to CEQA; California Public Resources Code Section 21000 et seq., specifically Public Resources Code Sections 21081 and 21081.6, as well as the CEQA Guidelines (14 CCR 15000 et seq.) Sections 15091 and 15093A, a Finding of Fact and Statement of Overriding Considerations document will be prepared upon project approval.

Response to SEARS 2-22
As discussed in RDEIR Section 3.4, Biological Resources, page 3.4-23, Santiago Creek is channelized and surrounded by development along portions of its extent, Santiago Creek serves as a corridor for wildlife movement by providing patches of habitat, as well as a water source, which connect the Santa Ana Mountains to the Santa Ana River, and eventually flows out to the Pacific Ocean. Thus, the habitat associated with Santiago Creek within the northern portion of the project site supports live-in and movement habitat for species on a local scale (i.e., some limited live-in habitat for fish, and live-in and at least marginal movement habitat for amphibian, reptile, bird, and mammal species), and likely functions to facilitate wildlife movement or a number of species on a regional scale.

Response to SEARS 2-23
Impacts related to hydrology, including potential runoff impacts, are discussed in RDEIR Section 3.9, Hydrology and Water Quality, and extensively analyzed in Appendix K, Hydrology and Water Quality Reports.

Response to SEARS 2-24
Drainage pattern, flow rate and amount are discussed in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-19.

Response to SEARS 2-25
Impacts related to hydrology, including water quality, are discussed in RDEIR Section 3.9, Hydrology and Water Quality, and extensively analyzed in Appendix K, Hydrology and Water Quality Reports.
Response to SEARS 2-26
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of Total Petroleum Hydrocarbons in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

Response to SEARS 2-27
Please refer to Master Response 4—Dam Safety and Risk of Failure.

Response to SEARS 2-28
Soil erosion is discussed in RDEIR Section 3.6, Geology and Soils, page 3.6-9. Liquefaction and landslides are also discussed in RDEIR Section 3.6, Geology and Soils, on page 3.6-9.

Response to SEARS 2-29
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-5, the project site has been previously backfilled as a permitted use to restore previously mined portions of the site. Previously mined portions of the project site were used for residue silt deposition, otherwise known as silt ponds. The backfilling operation addressed both mined and silt pond areas. Furthermore, please refer to Master Response 7—Applicability of SMARA.

Response to SEARS 2-30
Please refer to Master Response 7—Applicability of SMARA.

Response to SEARS 2-31
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment.

Response to SEARS 2-32
The NCCP/HCP is discussed in RDEIR Section 3.4, Biological Resources, and specifically in RDEIR Section 3.10, Land Use, on page 3.10-31.

Response to SEARS 2-33
Impacts related to biological resources, including the wetland, riparian habitat and trees are discussed extensively in RDEIR Section 3.4, Biological Resources.

Response to SEARS 2-34
Please refer to RDEIR Section 3.4, Biological Resources.

Response to SEARS 2-35
Please refer to Response to OCPW-8 regarding restoration.

Response to SEARS 2-36
Santiago Creek is discussed in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-2.
Response to SEARS 2-37
As noted in RDEIR Section 1, Introduction, page 1-17, City of Orange 2015 Urban Water Management Plan is used in the preparation of the RDEIR.

Response to SEARS 2-38
Impacts related to wastewater are discussed in RDEIR Section 3.18, Utilities, page 3.18-10. Impacts related to stormwater are discussed in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-24.

Response to SEARS 2-39
A noise study was prepared for the project and is included as Appendix N of the RDEIR.

Response to SEARS 2-40
Impacts related to air quality, including diesel emissions, are discussed in RDEIR Section 3.2, Agriculture Resources and Forest Resources.

Response to SEARS 2-41
Impacts related to grading are discussed extensively throughout the RDEIR, such as in Section 3.2, Agriculture Resources and Forest Resources; Section 3.4, Biological Resources; Section 3.6, Geology and Soils; Section 3.8, Hazards and Hazardous Materials; Section 3.9, Hydrology and Water Quality, etc. This comment does not elaborate or specify on which impacts are not provided related to grading. No further response necessary.

Response to SEARS 2-42
Impacts related to Air Quality are analyzed in RDEIR Section 3.3, Air Quality, and RDEIR Appendix F, Air Quality and Greenhouse Gas Supporting Information. Energy consumption is analyzed in RDEIR Section 6, Other CEQA Considerations, subsection 6.4, Energy Conservation.

Response to SEARS 2-43
AB 32 is discussed in RDEIR Section 3.7, Greenhouse Gas Emissions, page 3.7-12. Impacts related to Air Quality are analyzed in RDEIR Section 3.3, Air Quality, and RDEIR Appendix F, Air Quality and Greenhouse Gas Supporting Information.

Response to SEARS 2-44
The technical reports submitted for the RDEIR have been reviewed by the City of Orange. RDEIR Section 2, Project Description, subsection 2.5.2, identifies those State and federal agencies that may be required to grant approvals or coordinate with other agencies. The RDEIR discusses the potential approvals that may be required of each of these agencies in the relevant impact discussions.

Response to SEARS 2-45
The traffic study included as RDEIR Appendix P, Traffic Impact Analysis, was prepared on September 13, 2018. Thus, the traffic study is current and up-to-date. The traffic study included the analysis of cumulative projects in the area and an analysis of the permanent project. Please refer to Master Response 9—Soil Import/Export Numbers.

Response to SEARS 2-46
Facilities supporting alternative transportation, such as public transit, bicycles, and pedestrians, are discussed in RDEIR Section 3.16, Transportation and Traffic, specifically on page 3.16-122. As
discussed in RDEIR Section 1, Introduction, page 1-14, Air Traffic Patterns is an environmental issue determined not to be significant. RDEIR Section 7, Effects Found Not To Be Significant, page 7-2 states that the project site is 10 miles from the closest airport, Orange County John Wayne Airport. This distance precludes the possibility of alterations to air traffic patterns. No impacts would occur.

Response to SEARS 2-47
As discussed in RDEIR Section 3.9, Hydrology and Water Quality, page 3.9-27, Mitigation Measure HYD-5 requires the applicant to retain a qualified consultant to prepare and implement an Emergency Evacuation Plan. “The plan shall identify the various types of emergency that could affect the proposed project (e.g., dam failure, earthquake, flooding, etc.) and identify procedures for the safe and orderly evacuation of the project. The plan shall require that streets be identified with clear and visible signage and, if necessary, wayfinding signage be provided to identify exit points.”

Response to SEARS 2-48
Please refer to Master Response 6—Stewardship of Open Space.

Response to SEARS 2-49
Cumulative impacts are discussed and analyzed in RDEIR Section 4, Cumulative Effects. A summary matrix is provided in RDEIR Executive Summary, page ES-12. Alternatives are analyzed in RDEIR Section 5, Alternatives to the Proposed Project.

Response to SEARS 2-50
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to SEARS 2-51
Comment noted. Appendix L is currently posted on the City’s website and available to the public through the following link (https://www.cityoforange.org/DocumentCenter/View/8316/App-L---Land-Use-Background-ASMBLD)

Response to SEARS 2-52
Comment noted. This comment letter is included in the administrative record.

Response to Sears 2-53
As noted in RDEIR Section 1, Introduction, page 1-1, comments submitted on the previous Draft EIR will be part of the overall administrative record for the project; however, because the RDEIR replaces the previous Draft EIR in its entirety, written responses will only be provided to new comments submitted on the RDEIR during the RDEIR public comment period. The remaining exhibits do not raise any environmental comments that require a response, therefore, they are not reproduced in this Responses to Written Comments section, but they are included in the record of proceedings and administrative record.
Robert Garcia

From: John Seelert <johnseelert@yahoo.com>
Sent: Sunday, December 30, 2018 9:11 PM
To: Robert Garcia
Subject: The Trails of Santiago

Mr. Garcia,

I am opposed to any development of the Sully Miller mine site which would require a change of zoning from open space to residential. Years ago I voted to keep open space open and I’ll continue to vote that way. Our City Council has a fiduciary duty to its citizenry. This does not include a developer who purchased property knowing there were no entitlements for residential development in place; a developer who knew the community opposed residential development on that specific property; a developer who made a very poor business decision.

No where in the RDEIR is fact that there has been years of construction waste duped on the site addressed. There’s no remediation plan. There is no way this property can be adequately reclaimed and made safe for residential development with the current plan in place.

Thank you,

John Seelert, 720 N. Fern Street, Orange, CA 92867

Sent from Mail for Windows 10
John Seelert (SEELERT 1)

Response to SEELERT 1-1
Comment noted. Please refer to Master Response 1—Plan Consistency and Master Response 7—Applicability of SMARA.
Robert García

From: Sharon <shariberi121@gmail.com>
Sent: Sunday, December 30, 2018 8:51 PM
To: Robert García
Cc: Sharon Seelet
Subject: The Trails at Santiago

Mr. García

This letter is in response to the RDEIR for the Trails at Santiago Creek dated November 14, 2018. I am opposed to the proposed development known at the Trails at Santiago Creek by Milan REI X. I am opposed to any amendment to the City of Orange General Plan, the East Orange General Plan, the Orange Park Acres (“OPA”) Plan and the Santa Ana River/Santiago Creek Greenbelt plan which would change the current zoning of property at issue from open space to residential once the mining operation is shut down. The City of Orange (“Orange” or “City”) desperately needs to retain its open space. I believe the residents of this city have made their wishes clear to the City Council numerous times over the past several years. It is unbelievable to me that we should continue to have to fight this fight over and over.

Milan has a right to build on Mabury’s side of the Santiago Creek (“Creek”), the entitlements are in place. It also has a right to build on the Mara Brandman arena site with the current zoning in place. Let it do so. I understand that Mabury Ranch opposes any development on the north side of Santiago Creek. Mabury Ranch made its own bed when it accepted a zoning change on that property in 1993. Now it has to live with that decision. It cannot transfer its discontent with its own action and force a zoning change on OPA.

Milan does not, however, have any entitlements to build on the Sully Miller mining/rock quarry property. The property at issue is currently protected from development by three specific plans, the East Orange General Plan, the Orange Park Acres Specific Plan and the Santa Ana River/Santiago Creek Greenbelt Plan. Three plans all zoned ultimately for open space because that’s what we, the people, want – open space.

It is important to remember that Milan purchased this property KNOWING it did not have entitlements and KNOWING that the community did not want any development at this location and had fought against it previously and would fight against it again. We should not have to pay for MILAN’S POOR JUDGMENT. Nor should our city council attempt to shove this development down our throats.

The subject property is not suitable for residences because:
• The property is located directly next to an abandoned Villa Park landfill which emits methane gas in quantities sufficient to make people sick. This property is owned by the City of Orange. Is the City prepared for potential lawsuits from the residents/guests of these proposed homes arising out of sickness from the methane since the City is already on notice of the problem?

• The property contains four silt ponds that are filled with mine waste, concrete and asphalt debris as well as other construction waste. These silt ponds have never been property remediated in any manner that would support new home construction. Again, is the City prepared for potential lawsuits from the homeowners when their homes begin to sink because the silt ponds were not properly reclaimed?

• The property lies directly in the path of flash flood waters should the Villa Park and/or Santiago Dams fail. This threat cannot be dismissed. In 1969 we sandbagged our home in north east Santa Ana because there was concern one of those dams would fail. We were three blocks south of Santiago Creek but, nevertheless, we were warned to and did sandbag. Again, is the City prepare for potential lawsuits resulting from flooding?

The RDEIR's Project Description lacks critical information about the site's remediation. Because the City never required that a reclamation plan be prepared for the site's aggregate mining operations, it is not possible to identify the scope of remediation that would be necessary to prepare the site for development.

The RDEIR provides inconsistent information about the amount of clean soils that would have to be imported, and the amount of additional mine waste that would need to be exported in order to develop the proposed Project. The RDEIR Project Description states that the Project will require the import of 877,000 cy of clean materials and the export of about 500,000 cy of silt soils. The RR appendix, however, identifies import/export figures that are substantially greater than that disclosed in the main text of the RDEIR. Appendix I identifies a total of 3,348,200 cubic yards to be over excavated (2,248,200 cy will be exported and 1,100,000 cy will be imported.

The RDEIR states that the Project's construction activities will require up to 275,400 total haul trips during the grading period. RDEIR at 3.3-34. Yet, the number of truck trips would be substantially higher than this based on the import/export figures included in the RDEIR's technical appendices. In order to evaluate the Project's traffic, air quality, greenhouse gas and noise impacts, the revised EIR must clearly identify the import/export figures and truck trips required to prepare the site for Project construction.

The amount of equipment need for site remediation and preparation will also vary depending on the amount of earthwork required. If the amount of earthwork is different than disclosed in the RDEIR's project description, the RDEIR's analysis of air quality, greenhouse gas, and noise impacts will require revision.
Because the RDEIR's Project Description provides such scant information, it is entirely unclear what actions must occur to ensure that the site can be made safe for human occupation. The Project Description omits any mention of the hazardous environmental conditions that exist on the Project site and does not disclose where houses will be developed to purportedly avoid contamination from: asbestos containing material; vapor intrusion of trichloroethylene; and methane; and Total Petroleum Hydrocarbons.

The appropriate first step to development should be the preparation of a reclamation plan. We have a right to know what exactly is on that property, whether hazardous waste has been dumped and what will need to be done to properly remediate or reclaim the property. To date, the City has taken the position that no reclamation plan need be prepared because the Project site is not subject to Surface Mining and Reclamation Act of 1975 (SMARA). Yet, SMARA was enacted precisely to avoid this exact situation. Pub. Res. Code § 2710-2796. The Project site is known to contain hazardous and other contaminated materials and Milan has been unwilling to describe the specific remediation measures necessary to protect public health, property and the environment. In addition to protecting the environment and public health, a reclamation plan prepared now, prior to Project approval, could protect the City because the scope of the effort to reclaim the site will be clearly established and the cost of the effort fully recovered before any development could occur.

The RDEIR acknowledges the Project would create the potential for discharge of pollutants including Total Petroleum Hydrocarbons into downstream waterways but it fails to actually evaluate the effect that this contaminated discharge could have on water quality in these waterways. In addition, the document relies on vague and ineffectual mitigation measures and therefore offers no evidence that adjacent rivers or the reservoir immediately downstream would be protected from this contaminated runoff.

The Project site is located in an area with serious hydrologic constraints, as it contains 100-year and 500-year flood hazard areas. Storm drain facilities, including the Handy Creek storm drain, are already considered deficient. The Project has the potential to substantially increase runoff, posing flooding threats to downstream properties, but the RDEIR does not specifically identify the Project's flood control system. Nor does the document describe how the Project would comply with the Regional Water Quality Control Board's stormwater regulations.

The Project site provides suitable habitat for the Arroyo toad, yet the last surveys for this species were conducted about 10 years ago. The RDEIR must include up-to-date surveys for the toad. Without these surveys, the RDEIR lacks the evidentiary support that impacts to the toad would be less than significant, especially in light of the probable discharge of pollutants into the waterways. Amphibians are indicator species whose status provides information on the overall condition of the ecosystem and of other species in that ecosystem. They reflect the quality and changes in environmental conditions as well as aspects of community composition. As such they are the first to suffer harm from environmental conditions such as what may happen at this site.

The RDEIR's Project Description defers key studies and plans relating to the restoration and long term management of Santiago Creek Corridor and other trails and open space. The County has made no commitment for long-term stewardship of the Project's open space grasslands and trails. The costs associated with restoration
and maintenance of the Creek Corridor could well exceed the funding included in the Project. Milan promises to provide up to $4.1 million in landscape and other improvements for the Santiago Creek Greenway. This stretch of Santiago Creek has been ignored for decades. I’m sure this amount is insufficient to correct the environmental harm done to the creek by the decades of neglect and erosion, not to mention the mining and dumping operations and to properly reclaim the creek greenbelt. Further, it is important the City understands that we do not want another stretch of flood channel. We want a natural creek bed.

The restriping of Santiago Canyon and Cannon streets will be insufficient to handle the increased traffic. Such restriping might handle current traffic conditions on those streets. I currently travel Santiago Canyon between 6:00 p.m. and 7:00 p.m. At that time during the week Santiago can be backed up from Cannon to Kennymead. That’s a distance of 2.2 miles. I’ve seen northbound Cannon backed up as far as I can see from Santiago. Adding 1 more lane to accommodate the cars this project will add will not be sufficient.

OPA’s one-acre zoning didn’t happen by chance. It is preserved and maintained by people who work tirelessly to uphold the Orange Park Acres Specific Plan. Changing the specific plan, (or any portion of it) to a residential density of less than one-acre homesites would set a horrible precedent, allow developers to further encroach into Orange Park Acres and ruin the equestrian community.

It is truly a shame that the citizenry of Orange has to fight our city government to protect our open space and preserve the rural lifestyle which attracts people to OPA. This should be the job of our city government but that government has shown itself to be deaf to the desires of those it is supposed to serve.

One last note - In the list of plants Milan plans to use to landscape the open space area one of the plants listed is Nightshade. Every species of Nightshade is poisonous. It would probably be a good idea to vet all the plants listed so that all poisonous plants are removed and not used if in fact this project is approved.

Thank you,

Sharon Seelert

720 N. Fern Street

Orange, CA 92667
Sharon Seelert (SEELERT 2)

Response to SEELERT 2-1
Comment noted. Please refer to Master Response 1—Plan Consistency and Master Response 10—General Comments on Project, General Opposition.

Response to SEELERT 2-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to SEELERT 2-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to SEELERT 2-4
Comment noted. Please refer to Master Response 1—Plan Consistency. Furthermore, as discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

Response to SEELERT 2-5
Comment noted. Please refer to Master Response 7—Applicability of SMARA. Refer to Appendix I, Geotechnical Report. Furthermore, see RDEIR Section 3.6, Geology and Soils.

Response to SEELERT 2-6
Comment noted. Please refer to Master Response 4—Dam Safety and Risk of Failure. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to SEELERT 2-7
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

Response to SEELERT 2-8
Comment noted. Please see Master Response 9—Soil Import/Export Numbers.

Response to SEELERT 2-9
Comment noted. Please see Master Response 9—Soil Import/Export Numbers.

Response to SEELERT 2-10
Comment noted. Please refer to Master Response 2—Adequacy of Project Description.

Response to SEELERT 2-11
Comment noted. Please refer to Master Response 2—Adequacy of Project Description.

Response to SEELERT 2-12
Comment noted. Please refer to Master Response 7—Applicability of SMARA.
Response to SEELERT 2-13
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to SEELERT 2-14
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to SEELERT 2-15
Comment noted. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to SEELERT 2-16
Comment noted. Please see Master Response 6—Stewardship of Open Space.

Response to SEELERT 2-17
Comment noted. Please refer to Response to SMW-17.

Response to SEELERT 2-18
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to SEELERT 2-19
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to SEELERT 2-20
Comment noted. CEQA only requires analysis of potential physical impacts on the environment. The remainder of these comments are related to social or economic concerns and do not identify any environmental issue within the purview of CEQA or the EIR; thus, no further response is necessary.

Furthermore, RDEIR Section 3.4, Biological Resources, discusses impacts related to Biological Resources. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
31 December, 2018

Robert Garcia
City of Orange
Community Development Department, Planning Division

Dear Robert Garcia,

We are writing to you again about the Analysis of the Trails of Santiago Creek Proposal and RDEIR.

As a biologist, water-system infrastructure engineer and OPA family we find the deficiencies of the RIDEIR as enumerated by the OPA Association/Community to be egregious. We request that you suspend all plans for development of the Sully Millar property until the negative impacts to the ecosystem, infrastructure, traffic safety and community be fully addressed and ameliorated.

Sincerely,

Dr. Julia Bailey-Serres, Professor
Mr. Mark Serres, Engineer
20072 Hillside Drive
Orange Park Acres
Orange, CA 92869
Julia and Mark Serres (SERRES)

Response to SERRES-1

Comment noted. Please refer to Response to SMW-17. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. Commenter does not elaborate further on the deficiencies of the RDEIR with regard to the ecosystem, infrastructure, and traffic safety; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.
Mr Garcia,

Development of anything other than a very modest amount of residential units will dramatically increase traffic in an already significantly congested area. Traversing Santiago Canyon Road daily, it is impossible to avoid a time where there is minimal traffic and the traffic during rush hour time frames (up to 6 hours a day) is horrendous. If there is any impairment to through put, the back up can be miles and forces drivers to cut through areas where they shouldn’t and at an inappropriate rate of speed. This has happened numerous times where my quiet, narrow, residential OPA street becomes a zooming stream of cars.

The development size and location are a serious concern for all residents in the area and for those who cherish our safety. Traffic improvements after several mortalities only minimally mitigate these issues.

It isn't the residents fault that the developer chose poorly. It is now the city's responsibility to ensure that residents (all residents of the area, city and county) who live in the area and traverse Santiago Canyon Road are safe.

Lori Shackelford
1162 N Ridgeline Rd
Orange, CA 92869
714-744-4585
Lori Shackelford (SHACKELFORD)

Response to SHACKELFORD-1

Comment noted. Please refer to Response to SMW-17.
December 20, 2018

Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Ave
Orange, CA 92866

Dear Mr. Garcia,

This letter is to voice strong opposition to a zone change for OPA, and the proposed development, "Trails at Santiago Creek".

The traffic situation surrounding our community is already a serious problem which would be made worse by this proposed development. The traffic is a serious threat to life in the event of a fire, and has been proven in the very recent CA fires. OPA has evacuation concerns due to the responsibility to its animals.

Another serious natural disaster to consider in creating this new neighborhood is flooding. The development of these homes could complicate or even create a serious flooding condition. This developer is shrouded in negativity, there is nothing genuine or progressive about what they are offering us.

Leave the OPA Master Plan stand as was intended, and fought hard for to preserve.

Thank you for your time and consideration in ending this dispute once and for all and preserving the OPA rural way of life.

Sheila Sherman
12622 Daniger Rd
Santa Ana, Ca 92705
Sheila Sherman (SHERMAN)

Response to SHERMAN-1
Comment noted. Please refer to Response to SMW-17.

Response to SHERMAN-2
Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.
From: hoganhq@aol.com
Sent: Friday, December 21, 2018 10:33 AM
To: Robert Garcia
Subject: 'Trails at Santiago Creek' Letter

Eliza V. Smith
7046 East Amapola Avenue
Orange, CA 92859

December 21, 2018

Robert Garcia, Senior Planner
City of Orange
300 East Chapman Avenue
Orange, CA 92866

I am sending this letter to oppose the housing development of "Trails at Santiago Creek". I have lived in Orange Park Acres for more than 30 years and I believe the housing plan would add significant more traffic in this area. Please delete this housing project for the Sully Miller site.

Thank you.

Liza
Eliza Smith (SMITH)

Response to SMITH-1

Comment noted. Please refer to Response to SMW-17.
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Dear Mr Garcia,

I am totally opposed to the development called "Trails at Santiago Creek." There are already too many homes in this area and Santiago Canyon Road is totally clogged with cars morning and evening. Please keep me informed on this matter.

Lynda Stewart
20342 Acre Place
Orange, CA 92869
Lynda Stewart (STEWART)

Response to STEWART-1

Comment noted. Please refer to Response to SMW-17.
Kenneth and Julie Ann Stichter  
1492 North Portsmouth Circle  
Orange, CA 92869

Mr. Robert Garcia, Senior Planner  
City of Orange  
Community Development Department, Planning Division  
300 East Chapman Avenue,  
Orange, CA 92866

December 15, 2018

Dear Mr. Garcia,

This letter serves as our written comments regarding the RDEIR for the Trails at Santiago Creek Specific Plan dated November 14, 2018.

It is important to note that we support the need to rectify the negative impact of the sand and gravel operation at the former Sully Miller site. For too long the site has been both an eyesore and imposition. As a result, and with some caveats, we could support a proposal to provide a housing development that includes important recreation, landscape, open space, and environment improvements. However, that said, we have some significant concerns with specific elements in the Trails at Santiago Creek RDEIR.

1. Repeatedly, throughout the RDEIR and appendices, reference is made to “...extensive outreach with representatives of the adjacent neighborhoods, including Orange Park Association, Mabury Ranch Homeowners Association, and The Reserve Homeowners Association, in an attempt to determine community priorities for the site.” No doubt these associations provided input that reflected their residents. However, never did representatives of the Trails at Santiago Creek Project seek to gather input from those of us in the “Jamestown Residential” area. By its own admission, the project RDEIR notes there are 117 homes in this area that is on the south side of Santiago Canyon Road, directly across from the proposed development (Appendix Q, pps.1-1, 3.1, 3.11). Unlike the three association groups consulted, residents of the Jamestown area do not have an association. Jamestown area residents should have been canvassed for input. It appears that the developers either just ignored the area or purposefully excluded us from any input into their work. As a result, the developer did not do diligence regarding the effort to get credible input from all residents whose properties are close to the proposed project.

Thus, any suggestion that the developer has been “responsive to the interface concerns of the community (Appendix Q, p. 2.3) is very misleading. Also, since City staff was a part of the “community outreach” efforts of the developer one wonders why City staff did not question the lack of reasonable representation by residents of the “Jamestown Residential” area.
2. The proposal to put 128 dwellings on 40.7 acres of the 109.2-acre site would mean a significant departure from existing land use parameters dictated by current zoning provisions that suggest the entire area is to be open space. However, the proposal for homes on 40.7 acres raises the question of what is the best density. Yes, the lot sizes for the proposed 128 dwellings are consistent with a sizeable portion of the Mabury Ranch and much of the "Jamestown Residential" areas. But they are clearly not in line with lot sizes in Orange Park Acres, The Reserve, and the Jamestown area directly across from the proposed development. It would seem then that a better option would be to accommodate the surrounding residential areas by having a balanced blend of both smaller (8,000 to 10,000 square foot) lots and much larger (20,000 plus square feet to one acre) parcels. While this would result in a significantly smaller number of lots and dwellings, it would better align the Trails At Santiago Creek with the surrounding community.

3. Traffic volume on Santiago Canyon Road directly impacts residents in our area. Data in the RDEIR attempts to address the reality of traffic volumes during AM and PM peak hours. However, anyone who has observed these peak hours during the workweek knows that the RDEIR estimate of the traffic volume and its consequences is grossly understated. Moreover, the RDEIR tries to rely on questionable "sand and gravel credit" data to suggest the impact of the development will be less than would otherwise be anticipated.

a. On any given workweek day, during the late afternoon and early evening, it is common to find the traffic west bound on Santiago Canyon Road backed up for a significant distance at the Cannon and Santiago Canyon Road intersection. It is not uncommon to find the backup extending as far as the Holy Sepulcher Cemetery, which is a mile from the intersection. The resulting wait can be numerous intersection signal light cycles.

b. The number of Sand and Gravel vehicles and trucks involved is nominal since operations at the site have been minimal since 2015. It is a gross miscalculation to suggest that the current level of traffic generated by the sand and gravel site represents "686 daily trips."

The RDEIR identifies these as "credits" to suggest that without these credits the traffic situation at Cannon and Santiago Canyon Road is really not so bad. (Project Description, Circulation Plan, p. 2-55)

c. The addition of traffic generated by future residents of the proposed development will only contribute to an already significant problem. The developer tries to suggest that subtracting out the non-existing 686 sand and gravel generated trips means that the impact is mitigated. Again, this method of calculation is flawed. (Project Description, Circulation Plan, p. 2-55)

d. Thus, to suggest, as the RDEIR does, that the LOS (Level of Service) is rated as a "C" (Good) would seem to be a stretch. At best the situation merits a rating of "D" and perhaps even a rating of "E".
e. We can appreciate the effort to widen Santiago Canyon Road to mitigate the peak hour traffic. We hope the proposed widening is sufficient to alleviate the problem. However, real mitigation comes with considerably fewer houses than the 128 included in the development proposal.

4. Looking at the information provided in the RDEIR it is difficult to determine the future status of the existing turn lane for west bound traffic on Santiago Canyon Road seeking to make a left turn onto Jamestown. This needs clarification.

5. The proposed Trails At Santiago Creek represents a construction project unlike most other developments. The removal of existing gravel and associated debris is substantial and the potential impact on surrounding residents could be unreasonably burdensome during construction. All issues related to this process must be addressed and the developer must accept that it cannot easily dismiss or minimize the need to mitigate problems created by simply suggesting that although some impacts may be substantial and possibly “significant” after the proposed mitigation efforts they are “unavoidable.”

6. Given the potential impact on surrounding residents, the developer must be monitored closely to ensure that “All construction shall occur during the daylight hours” (Table ES-2: Executive Summary Matrix, p. ES-22). This is important because mitigation measures noted on page ES-36 suggest construction activities can take place up to 8:00 p.m. which, during several months of the year is well after daylight hours and clearly an imposition on the surrounding community.

7. It is possible that if the Trails At Santiago Creek project is approved by the City of Orange the developer, in this case Milan REI X, may seek to sell the project to another developer. If that should happen, what guarantee do residents of the surrounding area have that the new owner would be required to abide by all elements of the proposal, including those provisions involve zoning changes and the approved number of lots and the corresponding number of houses approved for construction on those lots?

We believe that the above noted concerns are reasonable and merit thorough and compelling responses.

Respectfully submitted,

[Signature]

Julie Ann Stichter

Ken and Julie Stichter
Kenneth and Julie Stichter (STICHTER)

Response to STICHTER-1
Comment noted. The comment consists of introductory remarks that do not raise any questions about the environmental analysis.

Response to STICHTER-2
Comment noted. This comment supports the need to rectify the negative impact of the sand and gravel operation at the former Sully Miller site. No further response is necessary.

Response to STICHTER-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to STICHTER-4
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to STICHTER-5
Comment noted. Please refer to Response to SMW-17.

Response to STICHTER-6
Comment noted. Please refer to Response to SMW-17.

Response to STICHTER-7
As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-12, Tait Environmental Services conducted a Phase II ESA of the project site that evaluated potential exposure to hazardous materials from the past land use activities and the neighboring landfill. Tait Environmental Services found that there was the potential for (1) vapor intrusion of TCE and methane into future dwelling units and (2) elevated levels of TPH in soil. However, the proposed occupied structures will be situated strategically to allow for future remediation of any potential landfill gas migration, consistent with the DTSC or other applicable regulatory agency. Accordingly, Mitigation Measures HAZ-2a to HAZ-2c are proposed to abate these conditions to a level of less than significant.

Response to STICHTER-8
Please refer to Response to BUSBY 1-11.

Response to STICHTER-9
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.
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December 26, 1918

Robert Garcia, Senior Planner  
City of Orange  
300 E. Chapman Ave.  
Orange, CA 92866

Robert C. Stumpf  
7230 E. Pony Ct  
Orange, CA 92869

Ref: Trails at Santiago Creek

I have been advised to address this letter to you as Senior Planner for the City of Orange in reference to Milan REL. proposal for project “Trails at Santiago Creek”, In the City of Orange.

I want to state, For The Record, that we are very “Opposed to the Development Called Trails at Santiago Creek” being proposed by Milan REL X.

We understand that Milan is a Corporation with deep pockets that has been pushing the City of Orange, for the last few years, to change it’s zoning laws to allow them to build on land that is not currently zoned for houses at the Sully Miller site and Orange Park Acres.

We urge the city of Orange to deny Milan’s proposal & preserve our historic, semi-rural Community.

Sincerely,

Robert & Emiko Stumpf  
Tel 714-997-8412  
bobstumpf@outlook.com
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Robert and Emiko Stumpf (STUMPF)

Response to STUMPF-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Master Response 1—Plan Consistency.
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Dear Robert Garcia,

I am a resident of Orange Park Acres and I oppose the development called “Trails at Santiago Creek”. This development requires a zone change that would change my neighborhood for the worse and violates the OPA Specific Plan that has been in effect for quite some time. I feel that the developer needs to propose a plan that fits within current zoning and also adheres to the OPA Specific Plan.

I have lived here 32 yrs and raised my kids in this equestrian neighborhood, Orange Park Acres, and it was always my dream to raise a family here. OPA is a hidden gem in Orange County and a major asset to Orange. Developers should not be allowed to buy properties that are not zoned for homes and then change that zoning just to suit their needs. They bought the property knowing full well the zoning in place and they currently have the right to build homes in certain locations north of the creek, but they are insisting on violating the OPA Specific Plan in order to build the way that is most profitable for them. In the process, they have been successful in dividing the residents of the community forcing them to take sides.

Please do not approve the latest proposal for the “Trails at Santiago Creek”.

Sincerely,

Synde Sutherland
Synde Sutherland (SUTHERLAND)

Response to SUTHERLAND-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Master Response 10—General Comments on Project, General Opposition and Master Response 1—Plan Consistency.
Dear Mr. Garcia,

I believe the Trails at Santiago Creek development proposed by Milan in the RDEIR is the only option available to the City of Orange to once and for all stop the rock crushing activities on this property, dramatically increase open space and park space and permanently extend the Santiago Oaks Regional Park.

The developer is offering $4,100,000.00 to restore the Santiago Creek greenway. This would be a dramatic improvement for all the wildlife that lives in the area. I am sure the City of Orange does not have the funds to make these kinds of improvements to the Santiago Creek greenway.

The traffic impact of the project appears to be minimal and the developer is offering $1,000,000.00 for traffic improvements. I believe the $1,000,000.00 is much more than would normally be required for a project this size.

The developer is also offering $1,000,000.00 to improve the trail system, $2,000,000.00 to move the Brandman arena to the Ridgeline area and dedicate the 50 acres of the Ridgeline golf course to the city.

While I support this project as presented in the RDEIR it will be critical for the City of Orange, and all the involved City Departments, to do their job in making sure the development follows all guidelines required with this type of construction project.

Sincerely,

Dan Swoish
City of Orange Resident
949.633.6499
danswoish@att.net
**Dan Swoish (SWOISH)**

**Response to SWOISH-1**
Comment noted. This comment supports the development of the project and no further response is necessary.

**Response to SWOISH-2**
Comment noted. This comment supports the development of the project and no further response is necessary.

**Response to SWOISH-3**
Comment noted. This comment supports the development of the project and no further response is necessary.

**Response to SWOISH-4**
Comment noted. This comment supports the development of the project and no further response is necessary.

**Response to SWOISH-5**
Comment noted. This comment supports the development of the project and no further response is necessary.
Hi Jim

Great points in the letter

OPA Specific Plan is 1 acre minimum - not clustering.

You may want to restate that point.

See you on the trail,

Laura Thomas
714-264-4242

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From: James Cathcart <jcathcart@sbcglobal.net>
Sent: Sunday, December 30, 2018 12:32 PM
To: rgarcia@cityoforange.org
Cc: D.Bradley@MusickPeeler.com; marksand8653@gmail.com; kimiyaanddavid@gmail.com; ryan@subradar.com; Cfath2000@yahoo.com; rancho.mora@yahoo.com; Tom Davidson; Laura Thomas 714.264.4242; matt@gmpropertiesinc.com; Peter Jacklin; Theresa Sears; Gina Ciampaglia; richard@environment-unlimited.com; belproductions@juno.com
Subject: Comments on The Trails at Santiago Creek RDEIR

Mr. Garcia:

I am submitting the attached letter with my comments on the RDEIR for The Trails at Santiago Creek.

Jim Cathcart
Laura Thomas (THOMAS 1)

Response to THOMAS 1-1

Comment noted. Please refer to Master Response 1—Plan Consistency.
Mr. Robert Garcia  
Senior Planner  
City of Orange  
300 E. Chapman Ave  
Orange, Ca. 92866

RE: RDEIR Sully Miller - Trails at Santiago Creek

Dear Mr. Garcia:

This RDEIR has been reworded and re characterized from the previous DEIR submitted by the developer for the Rio Santiago project on the Sully Miller site. Rio Santiago project applied for a general plan zone change from resource open space to high density, with over 400 units. I am attaching my letter submitted April 9, 2018 regarding the NOP for the current project and comments in this letter. All still apply.

The Sully Miller land site has not changed.

The Planning Commission unanimously voted to not ratify the DEIR for the Rio Santiago project. The City Council approved the Planning Commission’s unanimous vote to not ratify the DEIR.

Please identify the source of the additional dirt that has been added to the mounds of dirt on the site. Also, is Sully Miller operation in compliance with SMARA?
Page 2.

Please explain to me, how eight (8) issues that could not be mitigated, now do not exist? Can the Planning Commission and the City Attorney validate the City of Orange will have no liability in approving a project where public safety is at risk?

1. There is no RECLAMATION PLAN. For the safety of lives Milan should comply with the State and their Mining Act (SMARA). The failure to address the clean up of this site much for what has been caused by Milan, is on a liability for our City that in time will be passed on to taxpayers. These issues have not been adequately addressed in the RDEIR. This is required to return the land to its original condition. Is this a STATE of CALIFORNIA oversight or CITY OF ORANGE responsibility? Which agency is enforcing compliance?

2. The site is designated as OPEN SPACE in the Orange Park Acres Specific Plan and City of Orange General Plan. I and Orange Park Acres oppose this zone change.

3. The proposed plan of 128 homes on substandard size lots, does not comply with the Orange Park Acres Specific Plan of 1 acre minimum. The proposed R-1-8 and R-1-10 zoning is NOT IN COMPLIANCE with the Orange Park Acres Specific Plan. The OPA Plan is very clear the minimum lot size is one acre and only one single-family detached structure is allowed per lot.

4. The proposed project does not provide animal keeping zoning as per the Orange Park Acres Specific Plan and Equestrian Overlay Zoning.

5. Traffic Safety - Current traffic is backed up on Santiago Canyon Road from Jamboree and 241/261 to Cannon, then, north to Imperial/Serrano in the morning at 8 and afternoon beginning at 4:30. The Irvine Company has approval to build 1,100 homes at Jamboree/Santiago Canyon. How will the added 1,100 houses and cars, plus 128 houses and cars not impact traffic gridlock and public safety?
Daily traffic congestion and public safety have not been mitigated. No traffic calming measures have been considered, nor traffic speed reduction in the Orange Park Acres Equestrian Community under the California Vehicular Code.

6. **Public Safety - Emergency disaster plan.** The recent, unfortunate Paradise fire brings attention to emergency evacuation routes. The October 2017 recent fire starting at approximately 10:00AM and mandatory evacuation of 1,400 OPA residents and animals within 2 hours created a horrible life threatening traffic evacuation disaster. Some OPA residents were on Santiago Canyon road for an hour attempting to escape via the Katella/55 Freeway.

Consider the communities surrounding the Sully Miller site also evacuated:

- Mabury Ranch - 400 homes
- Villezurbanne - 600 condos
- High Horse Trails - 200 homes
- Santiago Hills - 500 homes
- Cowan Hills - 100 homes
- Gated Rocking Horse Ridge - 200 homes

Plus, several other communities not specifically mentioned that lie between Orange Park Acres and Rancho Santiago/Hewes accounting for an excess of 1,000 more homes were evacuated.

What is the emergency disaster plan for children attending Linda Vista Elementary, Chapman Hills Elementary and Santiago Middle Schools? How many students and staff are on those school sites? Plus, Santiago Canyon College students and staff. Please provide verification of number of students, staff and vehicles on these campuses; and **their inclusion in traffic studies and emergency evacuation plans.**

Had the 1,100 Irvine Company homes been built, an addition of another 1,100 families would have also been evacuated. All of these families must be considered in public safety decisions.
7. The project fails to comply with CEQA. Please refer to the Shute, Mihaly, and Weinberger, LLP letter dated December 28, 2018 submitted to the City of Orange.

8. The project is located within a Flood zone:
The Planning Commission in 2014 clearly stated regarding the project submitted by the same developer, “the City of Orange can not take responsibility/liability in sending a resident on an unscheduled trip to the ocean.” The location of the project has not moved, it is and will always be within a flood zone.

9. The RDEIR did not analyze alternatives honestly. There are feasible alternatives that would have less of an impact on the environment and the surrounding communities.

10. The project is inconsistent with ALL of the following:
   1. ORANGE PARK ACRES SPECIFIC PLAN
      which designates the site Open Space/Santiago Greenbelt Plan
   2. EAST ORANGE PLAN
      which designates the site Open Space - Regional Park
   3. SANTIAGO CREEK GREENWAY PLAN
   4. CITY OF ORANGE GENERAL PLAN

   The property is within the City of Orange Equestrian Overlay Zone to allow for horse and animal keeping and does not comply. The proposal is inconsistent with the 35 Policies from the Orange Park Acres Specific Plan.

   This RDEIR fails to inform the public of the true impacts and disclose reasonable alternatives that protect property rights for all. The RDEIR cannot be approved.

   I do not support Milan’s proposal.

Sincerely,

Laura Thomas
Laura Thomas (THOMAS 2)

Response to THOMAS-1
Comment noted. Please refer to Response to FHBP-2.

Response to THOMAS-2
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

Response to THOMAS-3
Comment noted. The comment consists of introductory remarks. No further response is necessary, as the commenter does not elaborate on what eight issues are that could not be mitigated. CEQA only requires analysis of potential physical impacts on the environment.

Response to THOMAS-4
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. CEQA only requires analysis of potential physical impacts on the environment.

Response to THOMAS-5
Comment noted. Please refer to Master Response 7—Applicability of SMARA. Economic or social considerations such as real estate values are not within the purview of CEQA or the RDEIR, which is limited to the potential environmental impacts of this particular proposed project. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to THOMAS-6
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to THOMAS-7
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to THOMAS-8
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to THOMAS-9
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to THOMAS-10
Comment noted. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to THOMAS-11
Comment noted. No further response is necessary, as the comment does not address any aspect of the current environmental assessment. Commenter does not elaborate further on why the RDEIR
fails to meet the requirements of CEQA; therefore, a more detailed response is not possible nor warranted under CEQA Guidelines.

Response to THOMAS-12
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to THOMAS-13
Comment noted. Please refer to Master Response 3—Analysis of Alternatives.

Response to THOMAS-14
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to THOMAS-15
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to THOMAS-16
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Shelia Thompson <shellapatriciathompson@yahoo.com>
Sent: Saturday, December 29, 2018 3:41 AM
To: Robert Garcia
Subject: Sully Miller Development

I feel sorry for anyone trying to live on that overly busy street! Mornings and evenings will make those homes suffer impossible traffic noise and impassable congestion. If there is a fire thru that valley the people in those homes will burn in their blocked neighborhood! Even at one acre minimums the area is a poor choice.

Beware the use of this area!
Respectfully,
Ronald Thompson
20151 Hillside, Orange 0

Sent from my iPhone
Ronald Thompson (THOMPSON)

Response to THOMPSON-1

Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. Impacts related to noise are discussed in RDEIR Section 3.12, Noise.
Dear Sir,

My husband and I have only been residence of OPA for 5 years. We moved here for the space and unique culture of the neighborhood. We have enjoyed the community gatherings at the area such as the cowboy Easter and Christmas as well as the cow sorting. We do not personally own horses but might someday and also love and encourage the equestrian lifestyle.

I do not believe changing the zoning will benefit this community in any positive way. I urge you to please consider the long term effects that your decision will have on this unique community.

I hope that the city will not allow greed and power to be the underlying factor of this important decision but reason and quality of life for the current, potential residence and the environment.

The traffic issues are of a major concern and I have not see any proposed changes to the infrastructure which would reduce the current and future traffic problem. Cars cut across Orange Park Blvd and Amapola which are sensitive areas due to horses crossing the road.

Please help us to save and preserve this special and unique life style. I am praying for the best possible outcome for all involved.

Thank you for your time and consideration.

Debra Tous
714-745-2944
Sent from my iPhone
Debra Tous (TOUS)

Response to TOUS-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to TOUS-2
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Master Response 1—Plan Consistency.

Response to TOUS-3
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to TOUS-4
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
From: Steve Tyreman <tyremanconstructioncorp@gmail.com>  
Sent: Monday, December 31, 2018 4:50 PM  
To: Robert Garcia  
Cc: d.bradley@mpglaw.com  
Subject: Sully-Miller project,

To: Robert Garcia, Senior Planner  
Senior Planner, City of Orange  
Community Development Department, Planning Division  
300 E. Chapman Ave.  
Orange, CA. 92866

From: Steve Tyreman (Resident)  
1740 N. Williamsburg St.  
Orange, CA. 92867

Ref: Sully-Miller Quarry/Development planning, Santiago Canyon Rd, (East Orange) Orange, CA., and there Recirculated DEIR. Orange Park Acres and its Board critique of the RDEIR. The intent of the current owners of the Quarry to rezone from the present zoning and Master Plan currently in place.

Mr Garcia  
First I want to establish, that I am a 33 year resident of my current address, When I moved my family here in 1985, Cannon did not go thru to Imperial Hwy. and it was named Loma, From Wanda going east on Villa Park Rd, It was still two lanes, There were horse stables just to the east of me. and Santiago College was an open field.

Since that time I have seen a multitude of changes, as we all know. The biggest one in my opinion was the opening/connection of the then Loma St. (to be changed to Cannon St) going north and connecting to Imperial Hwy. Not only did it open up Fire/Life/Safety to the home development being planned for in the North & East of the connection and the traffic being generated by the new home development as well as existing, It now became the Bypass (SHORT CUT) for the 91 Fwy drivers going to and from the Inland area. I can only say, that during peak times of the day, morning and evening, getting in and out of my street onto Cannon, can be very challenging if not somewhat dangerous. (If you like I would be more that happy to give you a personal demonstration during those periods)

Moving forward:Over the period of time that the property in review (Sully-Miller: The Project) I have kept abreast of the ongoing conditions thru the aid of the Orange Park Acres Board and there updates and meetings. I feel that they have been vigilant and well as fair to the ongoing issues of The Project, in regards to Master Planning and what was set forth long before The Project came to be and to the surrounding Residence (eg me) and how they would be impacted.

That being said; I have read the critique by the OPA Board of the RDEIR, and agree with there objective opinion(s) and statements generated by them. I, at this time implore you in the strongest way to bring to bear the reviews made of the RDEIR and its content.
Left to there own, the current owners/developers would have little if any regard to the residence now here, and the impact in which they would bring down on to them.

Thank you for your time.

Respectfully
Steve Tyreman

cc. d.bradley@mpglaw.com
Steve Tyreman (TYREMAN)

Response to TYREMAN-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project.

Response to TYREMAN-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to TYREMAN-3
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Marius van der Watt <mkvanderwatt@gmail.com>
Sent: Thursday, December 20, 2018 8:33 PM
To: Robert Garcia
Subject: Trails of Santiago Creek

Mr Garcia,

I want you to know that I oppose the development called “Trails at Santiago Creek”. It really irks me that a developer would want to change the zoning in an area that is NOT zoned for houses and plan to put up 200 homes in that area.

Are you aware of the flood risks that that area is subject to? Not to mention the traffic congestion that would occur at the single ingress and egress point to that area.

Please do the right thing and condemn this development.

Sincerely,
Marius van der Watt
Marius Van Der Watt (VAN DER WATT)

Response to VAN DER WATT-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition and Master Response 1—Plan Consistency. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Mr Robert Garcia,

Please accept this email as a vote for the opposition of the development called, “Trails at Santiago Creek.” I am concerned about traffic, as well as the loss of open space that was not meant to be zoned as residential.

Thank you for your time and consideration.

Regards,

Viviane Virga

Sent from Yahoo Mail for iPhone
Viviane Virga (VIRGA)

Response to VIRGA-1

Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Mike Walker <mwalker17@socal.rr.com>
Sent: Monday, December 31, 2018 1:52 PM
To: Robert Garcia
Subject: Trails at Santiago Creek - Recirculated Draft Environmental Impact Report

Hello,

As a resident of the area in question for over 40 years, I object to this proposed development. There is no way to mitigate the impact on traffic. As it stands now, I cannot even get in or out of my neighborhood in the morning or late afternoon due to traffic on Santiago and Cannon. Adding additional housing will bring traffic to a stop. Please reconsider approval of this development.

Thank you,
Mike Walker
Mike Walker (WALKER)

Response to WALKER-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Chrisann V. Walton
7133 E. Clydesdale Avenue
Orange, Ca. 92869

December 31, 2018

Mr. Robert Garcia
Senior Planner
City of Orange Community Development Department
Planning Division
300 E. Chapman Avenue
Orange, Ca. 92866

Sent via email to: rgarcia@cityoforange.org

RE: The Trails at Santiago Creek Revised Draft Environmental Impact Report (RDEIR).

Dear Mr. Garcia,

I have lived in Orange Park Acres since 1999. We moved here because of the open space and the fact that it is a horse friendly area. That being said, I am against the “RDEIR” as it stands.

1) Currently the traffic has increased so much that if there were an emergency (fire), there would be no getting out especially if it occurred in the early morning or late afternoon. This last fire was an example of that. The noise from this traffic has had a negative impact on our lives. Not to mention the gas fumes and other toxic matter that is a byproduct of the aforementioned.

2) Where is the environmental impact report on Noise and toxic fumes?

3) Open space has been shrinking and this is not a good thing. OPA is a rural community, not a metropolis.

4) Ask yourself this; Why did Milan purchase an area zoned for open space thinking he could change it to suit his needs? Why is this even a consideration? I would not buy a home in a community to rezone it into a 7-11. People that do this sort of thing are not interested in the community. They have one thing on their mind – Money. That’s all, Money. They do not care about those who are left to pick up the pieces.

5) If this were Old Town Orange, we would not even have to have this discussion. Preserve what we have left. Once it’s gone it is gone forever. Just like the song says “Don’t it always seem to go, that you don’t know what you’ve got till it’s gone. They paved paradise and put up a parking lot.”

Retain the OPA Specific Plan.

Sincerely,

Chrisann V. Walton
Chrisann Walton (WALTON)

Response to WALTON-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to WALTON-2
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to WALTON-3
Comment noted. Impacts related to noise are discussed in RDEIR Section 3.12, Noise. Impacts related to air quality are discussed in RDEIR Section 3.3, Air Quality.

Response to WALTON-4
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to WALTON-5
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to WALTON-6
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Deborah Ward <dpward3@me.com>
Sent: Sunday, December 30, 2018 9:29 AM
To: Robert Garcia
Subject: Against Sully-Miller Development Proposal - Rezoning

I live in Mabury Ranch and am against the current rezoning proposal for the Sully-Miller area.

Currently, we do not have the roads to support an additional 128 or 200+ homes. In the past couple of years, my commute time has more than doubled. The traffic on Santiago and Cannon during peak work times includes 100's of cars. The slowdown starts at Windes drive and gets worse as you approach Cannon. A 5 minute drive during off-peak periods can take 30 minutes or longer almost any time between 4:30 and 6:30 PM.

We do not have enough evacuation routes. Last year, we were asked to evacuate Mabury due to a fire. In my 45 minutes of driving, I made it out of my neighborhood to Santa Ana Canyon Road, which is a distance of less than 2 miles. The sky was filled with smoke and red haze. Cars were bumper to bumper. No car moved. I don't want the city of Orange to become another deathtrap like Paradise, where the city officials ignored evacuation problems.

Orange does not have enough open space. Rezoning what little open space Orange has is irresponsible to our future.

The current proposal does not mindfully address concerns about traffic, the current neighbors, or open space and should be denied.

Thank you

Deborah Ward
6007 E. Shenandoah Ave.
Orange, CA 92867
dward3@me.com
Deborah Ward (WARD)

Response to WARD-1
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to WARD-2
Comment noted. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.

Response to WARD-3
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to WARD-4
Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: Ann Webb <annwebb0445@gmail.com>
Sent: Thursday, December 20, 2018 12:53 PM
To: Robert Garcia
Cc: StopSulleyMiller@gmail.com
Subject: Stop Sully Miller

I AM OPPOSED TO THE DEVELOPMENT "TRAILS @ SANTIAGO CREEK. I am a long term (40+ years) homeowner of Orange Park Acres...and the traffic has become so bad late afternoons.....I have been unable to traverse out of my Pheasant Run Development onto Chapman (right or left turn). This is a safety issue for our 48 homes as there is no other access out of our development. We do not need more vehicles.

Ann Webb
7121 E Cambria Circle
Orange, Ca 92869

Sent from my iPad
Ann Webb (WEBB)

Response to WEBB-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Robert Garcia

From: PETER WETZEL <wetzer@aol.com>
Sent: Monday, December 31, 2018 4:59 PM
To: Robert Garcia
Subject: Comments on RDEIR for Trails at Santiago

I wrote in opposition to the earlier version of this project document and find that my objections remain in this one; therefore, I still oppose the project.

The project depends on rezoning and overturning of existing land use plans for this area. Parts of this project area are already covered by existing East Orange and Orange Park Acres specific plans which should be respected. We would not expect our City officials to rezone areas within the Old Town Specific Plan to allow a developer to build a condominium project and we should not violate these other plans to allow this development.

I would support, however, the alternative 5.2 called Development within the Existing Land Use designations.

Peter Wetzal
7217 E. La Cumbre Dr.
Orange
Peter Wetzel (WETZEL)

Response to WETZEL-1
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to WETZEL-2
Comment noted. This comment supports Alternative 5.2—Development within the Existing Land Use Designations. No further response necessary.
THIS PAGE INTENTIONALLY LEFT BLANK
Robert Garcia

From: Kelley White <kmwhitesunshine@gmail.com>
Sent: Saturday, December 29, 2018 9:10 AM
To: Robert Garcia
Subject: Milan REI X

Hello Robert,
I am writing you to inform you that I oppose the development called “Trails at Santiago Creek” proposed by Milan REI X. This will cause further traffic issues and I am opposed to building 200 plus units. Since, a portion of the property falls within OPA it does need to follow the guidelines that the OPA community plan set up years ago. OPA is the last true rural community here in Orange County. I was born here and feel that it would be a travesty to our community to let large developers like Milan destroy what we as community members have worked so hard to preserve.
I also have read several reports that Milan is now offering the city quite a bit of money to persuade you to comply with what he would like you to do not only for this piece of property and the one across the street. I hope that you and the rest of the city officials has the integrity and foresight to see what he is doing.
Please hold Milan REI X to the same standards you would hold the rest of us to that do not have the same financial means.
Sincerely,

Kelley White
Kelley White (WHITE)

Response to WHITE-1
Comment noted. Please refer to Master Response 1—Plan Consistency. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to WHITE-2
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Hello Robert Garcia, I wanted to send you my thoughts on the Sully Miller - Milan DEIR

Let me start with our wildlife that need the Santigo Creek Corridor to survive. The cost to do the restoration part would well excited the funds they set aside for it. Not realistic. I managed the Orange County Bird of Prey Center. I've seen how large construction can impact wildlife. Losing any of the Cotton woods and Oak trees will have dire effects. They always say they will not remove trees during nesting seasons but when it comes to money this always goes out the door.

When it come to the sand and gravel zoning. If the zoning is changed it should be changed to R4 zoning since it is in the Orange Park Acres plan. If Milan, changes the zoning to R8 zoning for the 128 home proposed, that would leave it open to sale to any builder and the zoning would allow up to 168 homes. Santiago and Orange Park Blvd. Can not handle it. 2.50 cars per house everyday. (300+ cars). Orange Park Acres has a long history and reputation of being a equestrian community. That many cars would add to unsafe conditions for horses and riders.

I have a lot more concerns about the RDEIR. Safety of the ground because of all the material that was dumped there when they remodeled Angel Stadium.

Thank you for your time and consideration.

Dru Whitefeather
Dru Whitefeather (WHITEFEATHER)

Response to WHITEFEATHER-1
Comment noted. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to WHITEFEATHER-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to WHITEFEATHER-3
Comment noted. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.

Response to WHITEFEATHER-4
Comment noted. Impacts related to hazards and hazardous materials is discussed in RDEIR Section 3.8, Hazards and Hazardous Materials.
Robert Garcia, Senior Planner
City of Orange
300 E Chapman Avenue
Orange, CA 92866

December 26, 2018

Dear Mr Garcia,

I am writing as a resident of Orange Park Acres. I oppose the development called, “Trails at Santiago Creek”. The traffic on Katella in the morning and between 4pm and 7:30 pm is already horrible. In the event such as another wild fire and an evacuation, we would be caught in a terrible gridlock. We, as residents can see how an additional 200 homes adding another potential 400 cars could create havoc during a disaster. We moved to Orange Park Acres because we love the rural feel and because each lot is an acre or more. We hope to keep that feel throughout our area in keeping with the original plan of the OPA properties. Thank you for your consideration.

Kari Wildermuth
11093 Meads
Orange, CA 92869
Kari Wildermuth (WILDERMUTH)
Response to WILDERMUTH-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.
Robert Garcia

From: Sandra Wingerd <sjwingerd@gmail.com>
Sent: Saturday, December 29, 2018 4:55 PM
To: Robert Garcia
Subject: Trail of Santiago Creek

I am writing to oppose the development, "Trails at Santiago Creek." I am a 20 year resident of Orange Park Acres who loves our rural community and enjoys horseback riding on our wonderful trail system.

There are so many important reasons to deny this project. One that stands out in my mind is the traffic impact. Santiago Canyon Rd already has horrific traffic during rush hour and frequent car accidents. When we evacuated for the Canyon 2 Fire, it was very difficult to get out of the area. There were simply too many cars trying to use just two streets—Chapman and Santiago Canyon.

I strongly urge you to deny this awful project.

Sandra Wingerd
Orange Park Acres Resident
Sarah Wingerd (WINGERD)

Response to WINGERD-1

Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17. As discussed in RDEIR Section 3.8, Hazards and Hazardous Materials, page 3.8-15, Mitigation Measure HAZ-5 would require the Applicant to prepare and submit plans to the City of Orange for review and approval demonstrating compliance with all applicable emergency access provisions of the Fire Code, prior to issuance of the first building permit. The approved plan shall be incorporated into the proposed project.
December 31, 2018

Mr. Robert Garcia
Senior Planner
City of Orange, Community Development, Planning Division
300 E. Chapman Ave.
Orange, CA 92866

Dear Mr. Garcia,

I writing in reference to the Sully-Miller/Milan Project Recirculated Draft Environmental Impact Report (RDEIR). I live at 10422 Orange Park Blvd (Orange Park Acres). I grew up in OPA since the age of 3. I moved back to my childhood home to care for my mom and re-establish my residence in OPA. It was the perfect neighborhood/environment to grow up. You knew all your neighbors and everyone helped everyone. It was a community that cared! See what has happened to other areas, (Villa Park, Anaheim Hills, Irvine etc), I was grateful that OPA remained a community that cares and still had the equestrian lifestyle. I learned the OPA Plan to ensure I community was preserved. It saddens me that a company like Milan cares nothing for the land or the environment and is strictly driven by greed. They will try accomplish their financial goals as any cost, with no regard for human or environment safety.

After reviewing the RDEIR, I feel it is not thorough and details are not accurate. This RDEIR should be rejected and further studies/requirements should be required due to the following:

1. The proposed project is in direct conflict with the current OPA Plan that has long been planned for open space and park uses. The OPA Plan calls for phasing out the sand and gravel extraction operations and creating a natural riparian area along Santiago Creek.
2. Even if housing was proposed within the OPA Plan (1 acre lots), due to the potentially hazardous environmental conditions that exist at this site, it is clear that a reclamation plan must be prepared to determine if this land can be made suitable for human occupation. Milan has been unwilling to describe the specific remediation measure needed to protect public health, property and the environment. It is clear that Milan has no regard for public safety, the environment or (short term or long term) that OPA plan established with these specifics in mind.
3. Inconsistent information about the amount of clean soils that would have to be imported and the amount of additional mine waste would need to be exported.
4. The potential for discharge of pollutants into downstream waterways, but does not evaluate the effect that this contaminated discharge could have on water quality.
5. Project site in located in a 100/500 year flood hazard area. Project has potential to substantially increase runoff, posing flooding threat to downstream properties. RDEIR does not specifically identify the Project’s flood control system.
6. The RDEIR fails to adequately mitigate impacts to southern cottonwood riparian forest, CDFW jurisdiction streambed and associated riparian habitats. These sensitive communities are considered high priority for conservation by California department of Fish and Wildlife. 
As a resident of OPA, it is my responsibility and goal to fight to preserve our community and save our environment from developers like Milan, that have one objective, Greed! And they will do anything to achieve their financial goals, at any expense.

Thank you for your time. I hope you will agree and reject the RDEIR.

Thank You,
Laurel Maldonado-Wykes
10422 Orange Park Blvd.
Orange, CA 92869
760-213-6504
Lwykes62@gmail.com


Laurel Wykes (WYKES)

Response to WYKES-1
Comment noted. This comment will be provided to the City decision makers for their review and consideration in determining whether to approve the project. Please refer to Master Response 10—General Comments on Project, General Opposition.

Response to WYKES-2
Comment noted. Please refer to Master Response 1—Plan Consistency.

Response to WYKES-3
Comment noted. Please refer to Master Response 7—Applicability of SMARA.

Response to WYKES-4
Comment noted. Please see Master Response 9—Soil Import/Export Numbers.

Response to WYKES-5
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to WYKES-6
Comment noted. Impacts related to hydrology and water quality are discussed in RDEIR Section 3.9, Hydrology and Water Quality.

Response to WYKES-7
Comment noted. Impacts related to biological resources, including arroyo toad habitat, are discussed in RDEIR Section 3.4, Biological Resources.

Response to WYKES-8
Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition.
Robert Garcia

From: Bob Zweig <peartrei@aol.com>
Sent: Friday, December 21, 2018 1:56 PM
To: Robert Garcia
Cc: stopsullymiller@gmail.com
Subject: Trails at Santiago Creek

Robert:

I am strongly opposed to the subject development. Please do NOT let this project move forward.

I live in the Orange Park Acres community and this project would adversely affect our entire community and traffic on Santiago Canyon and the surrounding communities.

Sincerely,

Robert L. Zweig, EMS, MBA
Broker: BRE#00480752
direct: 714-381-1031
fax: 866-567-3106
peartrei@aol.com
THIS PAGE INTENTIONALLY LEFT BLANK
Robert Zweig (ZWEIG)

Response to ZWEIG-1

Comment noted. Please refer to Master Response 10—General Comments on Project, General Opposition. Impacts related to transportation are discussed in RDEIR Section 3.16, Transportation and Traffic. Furthermore, please refer to Response to SMW-17.
Non-Draft RDEIR Comments

Table 3-1 summarizes the individuals that submitted comments that pertained to the proposed project, but did not specifically address any aspect of the RDEIR's analysis. The letters are reproduced following the table. Please refer to Master Response 10—General Comments on Project, General Opposition for a response to these comments.

**Table 3-1: Non-RDEIR Comments**

<table>
<thead>
<tr>
<th>Signatory</th>
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<tr>
<td>Carol Adams</td>
<td>Michael Adams</td>
<td>Bob and Alice Agnew</td>
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<td>Kaye and John Amdon</td>
<td>Bruce Bausfeld</td>
<td>Karen Beck</td>
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<td>Kelli Bennett</td>
<td>Janae Blalock</td>
<td>Oscar Brandi</td>
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<td>Linda Cannon</td>
<td>Crystal Chavez</td>
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<td>John Clark</td>
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<td>B. Higgins</td>
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<td>Andy Long</td>
<td>Jason Martin</td>
<td>Suzanne Martin (2 letters)</td>
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<td>Tim McAleele</td>
<td>Kathy McNeill</td>
<td>Cliff and Doris Melson</td>
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<td>Byung Min</td>
<td>Emily Moore</td>
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<td>Steve Moore</td>
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<td>Jayne and Art Reynolds</td>
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<td>Craig Rizzi</td>
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<td>Daniel and Karen Rodiles</td>
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<td>Alice Schultz</td>
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<td>Heather Schultz</td>
<td>Oscar Sendowsky</td>
<td>Julie Shaw</td>
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<td>Robert and Emiko Stumpf</td>
<td>Vivien Swanson</td>
<td>Gisella Tellez</td>
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**Table 3-1 (cont.): Non-RDEIR Comments**

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<td>Joanna Tu</td>
<td>Van Tu</td>
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<td>Amy Vail</td>
<td>Rene Valbuena</td>
<td>Maria Von Sprecken</td>
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<td>Bernice Wakefield</td>
<td>Lynda Waldrip</td>
<td>Thomas Walsh</td>
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<tr>
<td>Beverly Warren</td>
<td>Barbara Weiner</td>
<td>Martha Wetzel</td>
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<tr>
<td>Thomas and Cinda Wittman</td>
<td>Ali Youssef</td>
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</tbody>
</table>

Source: City of Orange 2018.
Robert Garcia

From: michael Adams <micakk@earthlink.net>
Sent: Thursday, December 27, 2018 2:54 PM
To: Robert Garcia
Subject: Sully Miller Site

Robert Garcia, Senior Planner,

I Oppose the proposed development called “Trails of Santiago Creek”. Please do not allow this development.

Please don’t develop this land.

Please,
Carol S. Adams
2330 E. Adams
Orange, Ca. 92867
Robert Garcia

From:   michael Adams <micakk@earthlink.net>
Sent:   Thursday, December 27, 2018 2:51 PM
To:     Robert Garcia
Subject: Sully Miller site

Robert Garcia, Senior Planner,

I oppose the development called “Trails at Santiago Creek”. Please do not allow this development.

Please don’t let this land be developed!

Michael V. Adams
2330 E Adams
Orange, Ca. 92867
Robert Garcia

From: Bob & Janice Agnew <ragnew@socal.rr.com>
Sent: Saturday, December 29, 2018 11:11 AM
To: Robert Garcia
Cc: StopSullyMiller@gmail.com
Subject: Development: Trails at Santiago Creek

We OPPOSE the development called Trails at Santiago Creek. It is not appropriate for the area.

Bob & Janice Agnew
7148 Grovewood Ln.
Orange, CA 92869
Dear Mr. Robert Garcia,

We oppose the building project "Trails of Santiago Creek".

Sincerely,
Kaye and John Amdon
7927 E. Horseshoe Trail
Orange, CA 92869
December 21, 2018

Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Ave.
Orange, CA 92866

Re: Trails at Santiago Creek

Dear Mr. Garcia,

I am a resident of Orange and I oppose the development called, “Trails at Santiago Creek.”

Thank you,

Dr. Bruce Bauersfeld
I OPPOSE THE DEVELOPMENT CALLED "TRAILS AT SANTIAGO CREEK"

I am a 40-yr resident and homeowner in Orange Park Acres. I strongly disagree with any effort to change the existing zoning code in order to accommodate further residential development.

Karen Beck
Robert Garcia, Senior Planner

I oppose the proposed development called "Trails of Santiago Creek". Please do not allow this development.

Please do not build this development.

Please,
Kelli Bennett
2236 E Locust
Orange, Ca 92867
Hello,

I am a resident of Orange, CA and I oppose the development called The Trails at Santiago Creek.

If this project were to go through, I firmly believe it will negatively impact the entire city of Orange and OPA.

Thank you,
Janae Blalock

Sent from my iPhone
From: Oscar Brandi <oscarabrandi@gmail.com>
Sent: Friday, December 28, 2018 12:31 PM
To: Robert Garcia
Subject: Oppose trails at Santiago creek

I oppose the development called “trails at Santiago Creek”.

Oscar Brandi
High Horse Trails resident
Orange, CA

Sent from my iPhone
Dear Mr. Garcia, I am a 23 year resident of Orange Park Acres. I am asking you to deny the current RDEIR planned for the Sully-Miller property. For the reasons you already know, it is inadequate and poorly planned. It does not benefit the City of Orange or the community of Orange Park Acres. With some more time and thought, I'm sure you and your team and the City Council can come up with a plan that does not overly favor the Builders and let them plunder what we have held so dear, through the Specific Plan you are now willing to violate. Please rethink your position and let us keep our community. Sincerely, Linda Cannon, Orange Park Acres, Ca.
Hello,

I oppose the development called, The Trails at Santiago Creek.

If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres.

Much Thanks in advance for your help on this.

Crystal Ann Chavez
I oppose the development called "Trails at Santiago Creek."
I live in city of Orange High Horse Trails.

Sent from my iPhone
Robert Garcia,
I have lived in the OPA for the past 7 years.
I have reviewed through the City of Orange web site on the Trails at Santiago Creek project.
After considering the information; I oppose this project.

John Clark
7620 E Twinleaf Trail
Orange, CA. 92869

Sent from Mail for Windows 10
I oppose the development called "Trails at Santiago Creek". Please consider the welfare of the community and the HISTORY of Milan. Don Clift 6722 Horseshoe Rd. Orange, Ca.
I strongly oppose the development called “Trails at Santiago Creek”.

Julie Clinton
20121 Hillside Drive
Orange CA 92869

Get Outlook for iOS
I oppose the development called Trails of Santiago Creek.

Sent from my iPhone
I oppose the development called, "Trails at Santiago Creek"
May 28, 2003

Mr. Ben Pruett, Chairman
City of Orange Planning Commission
300 E. Chapman Ave.
Orange, CA 92866

Re: Fieldstone Development/ Sully Miller Project

Dear Mr. Pruett and Honorable Commissioners,

I am writing this letter on behalf of the Orange Park Association Board of Directors. We would like to state as a matter of record that we not be seen as "selling out" to the interests of a developer. We feel that given the times we are now in a great amount of dealing must go on to bring any project to fruition. We applaud what the Planning Commission has negotiated for the community in this project, and would like the Planning Commissions support for what we feel is of vital importance to Orange Park Acres and the surrounding community.

We consider a project with a few homes that could enjoy our rural lifestyle to be less beneficial to Orange Park Acres than a development with common area stables that brings the equestrian lifestyle we all enjoy to a greater number of residents. There are developments like this within the City of Orange that also lie in Orange Park Acres that have less than a one acre minimums Broadmor, Pheasant Run, and The Wilderness are fine examples of this existing lifestyle.

The OPA arena and the trails that surround our community, that are open to the public free of charge, are maintained through fundraising and volunteering by people that are committed to maintaining our lifestyle. This is a lifestyle rich in the history of The City of Orange.

The planning process has gone on for quite some time. Our position has been the same all along; we need the arena site to maintain the equestrian lifestyle we all have worked so
hard for. We feel this is a good project that has gotten even better with the time that has been put into it.

We feel we have negotiated in good faith not just for ourselves, but also for the good of the community at large.

Respectfully submitted,

Tom Davidson, Vice President
Orange Park Association

CC: Mr. Phil Bonina, Ms. Mara Brandman, Ms. Teresa Smith, Mr. Ken Romero, Mayor Mark Murphy, Council Members; Carolyn Cavecche, Joanne Coontz, Mike Alvarez, Steven Ambriz
Dear Mr. Garcia,

I oppose the development called "Trails at Santiago Creek". It threatens safely, open space, and zoning within Orange Park Acres and will worsen traffic in our area.

The developer is requesting a zone change that would allow for 200 plus units to be built on the Sully Miller property. I oppose this and do not want a zone change that would then change the specific plan for Orange Park Acres.

Respectfully, Char Davis
8316 E. Woodwind Ave, Orange CA

Char
Robert Garcia

From: Marcie Dial <marciedial@sbcglobal.net>
Sent: Monday, December 31, 2018 10:27 AM
To: Robert Garcia
Subject: Draft EIR Sully Miller

I'm opposed to the recent EIR Plan submitted by Milan regarding the Sully Miller Property. The report doesn't address all of the issues which would not support construction of new homes.

Sincerely,
Marcie Dial
11041 Meads Ave
Orange, CA 82869
(714) 473-8339
marciedial@sbcglobal.net

Sent from my iPhone
From: Cheryl Dickey <skyranger@icloud.com>
Sent: Monday, December 31, 2018 8:54 PM
To: Robert Garcia
Subject: Trails at Santiago

I oppose everything to do with the plan that Milan has put forth.

Sent from my iPhone
I OPPOSE the development called " Trails At Santiago Creek"
Sent from my iPad
I oppose the development called, The Trails at Santiago Creek.

If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres.

Craig Erion
Lemon Heights
I oppose the development called, The Trails at Santiago Creek. I am a homeowner in Orange, CA. I moved to Orange specifically because of the equestrian community and the safety of the area. I am a new mom and I can’t imagine raising my daughter in Orange Park Acres when it turns into Irvine. We love Orange because of how authentic it is and beautiful.

If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres. I hope you take the time to consider the thoughts of a local resident of Orange.

Amanda Ferris
1616 N Dressage St
Orange, CA 92869
Robert Garcia

From: wolfgangfrisch2010@gmail.com
Sent: Saturday, December 29, 2018 5:06 PM
To: Robert Garcia
Cc: stopsullymiller@gmail.com
Subject: Trails at Santiago creek - oppose

We strongly oppose the development called “trails at Santiago creek”.

My family and I have lived in Orange for many years.

This project is contrary to the best interest of the community.

Thank you Robert.

Sincerely,

Wolfgang Frisch
10581 s. Morada dr.
Orange, 92869
714-606-2133

Sent from my iPhone
Happy New Year, or so I hope it will be,

I am a user of the Santiago Oaks trail system, Irvine Regional Park, and Orange Country resident. I recognize growth is a path many cities look to as a way of progress. Progress and growth are not the same. I am concerned about the impact of the new development called The Trails at Santiago Creek. If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres. Keep Orange a great place to live and visit.

-Kevin Gaffney
Dear Mr Garcia,

I oppose the development called “Trails at Santiago Creek”.

Sincerely,

Richard Gallego
10939 Meads
Orange, CA 92869
714 745-5211
Robert Garcia:
I want to register my opposition to the zoning change allowing 200+ homes to be built in the “Trails at Santiago Creek” development.
Thank you for your service to our city.

Everett R. Geis
7536 E. Twinleaf Trall
Orange, CA 92869-2425
Mobile: 714-292-3538
everettgeis@att.net
Robert Garcia
City of Orange
300 E. Chapman Avenue
Orange, CA 92869

We oppose the development called, "Trails at Santiago Creek". We have lived in East Orange more than 20 years and moved here because of the unique lifestyle and minimal housing.

We are committed to protecting this historic, semi-rural community. Help us save our great and unique neighborhood for future generations.

Leslie and Dan Getzinger
Protect the OPA Specific Plan

We, the undersigned, are petitioning the Orange City Council to stand firm on maintaining and protecting the Orange Park Acres Specific Plan adopted in 1973. We are alarmed by what appears to be an orchestrated effort on the part of the City Council to restructure the Planning Commission and the Council through dismissals and appointments that would obstruct the best interests of Orange Park Acres.

Leslie L. Gislason
7404 E. Saddlehill Tr.
ADDRESS
Orange Cnty 92869
SIGNATURE
PRINT YOUR NAME
COMMENT

Irving Lee Gislason
ADDRESS
Orange Cnty 92869
SIGNATURE
PRINT YOUR NAME
COMMENT

SIGNATURE
ADDRESS
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Robert Garcia

From: Sidney Glazer <sidjan@socal.rr.com>
Sent: Thursday, December 20, 2018 4:36 PM
To: Robert Garcia
Cc: StopSullyMiller@gmail.com
Subject: Sully Miller site

We oppose the development called, Trails at Santiago Creek. We live in Orange Park Acres.

Sidney Glazer
Janice Lysiak

Janice's Email
The Sully Miller Arena is a main reason of why I call Orange Park Acres "home". The community would be devastated if a loss like this occurred in our home. I strongly oppose the 'Trails at Santiago Creek' proposal.

Kalen Hatzfeld
We oppose the development called "Trails at Santiago Creek"

Mike and Judi Henry
North Lemon Hill Trail
Broadmoor

ATTENTION: This electronic transmission, and any documents attached hereto, may contain confidential, legally privileged, proprietary data, and/or non-public personal information as defined in the Gramm-Leach-Bliley Act (collectively, "Confidential Information"). If you have received this electronic message in error, please notify the sender and delete the electronic message. Any disclosure, copying, distribution, or use of the contents of information received in error is strictly prohibited. By accepting and reviewing any Confidential Information contained in this electronic transmission, you agree to maintain and protect the confidential nature of the Confidential Information in accordance with the applicable law and to ensure nondisclosure except for the limited purpose for which it is being provided, and agree to indemnify us against any losses or expenses resulting from any unauthorized use or disclosure of Confidential Information.
I oppose the development called "Trails at Santiago Creek.

Thank you,

--
Jim Herkimer, DPT, MS, ATC
Executive Director, CEO
Sports Conditioning and Rehabilitation
871 S Tustin, Orange, CA 92866
714-633-7227

This email was seamlessly encrypted for your privacy and security by Paubox
I oppose the development called "Trails at Santiago Creek."

20062 E. Chapman Ave
Orange, CA 92869
bhdservices1@gmail.com
From: Luann Hillman <luhillman@yahoo.com>
Sent: Monday, December 31, 2018 2:12 PM
To: Robert Garcia
Subject: OPPOSE development of the Trails at Santiago Creek

Whatever happened to the will of the People? Liars and Carpet Baggers using our local government to turn a buck for themselves. I'm for raising a voice and shining a light on these thieves. How about you??
LuAnn Hillman
1025 W Sycamore St a
Anaheim CA 92805
Robert Garcia

From: randy hillman <rbhillman2000@yahoo.com>
Sent: Saturday, December 29, 2018 8:56 PM
To: Robert Garcia
Subject: Sully Miller property DEIR

Dear Mr. Garcia,

This is a bad plan, and the DEIR is inadequate. If the city were to certify this document, you are putting your seal of approval on a project that shows no signs of being done correctly and is putting the citizens of our city at risk of having to take on its liability. If this were to go to court, would you really want to stand behind this EIR? It just can’t be certified. Please do what is smart and deny this RDEIR.

Sincerely

Randall Hillman
640 E. Palmyra
Orange
Robert Garcia

From: dayna074 <dayna074@yahoo.com>
Sent: Tuesday, January 1, 2019 1:09 AM
To: Robert Garcia
Subject: Opposition to 'Trails at Santiago Creek'

Dear Robert,

My family and I oppose the development called 'Trails at Santiago Creek'.

Thank you,
Dana Homer-Bertrand
Mr. Garcia,

I oppose the development called "Trails at Santiago Creek". This is not good for our city, our community or my family!

Sincerely,

Stephen Kaufman (O.P.A resident)
I oppose the development called "Trails of Santiago Creek". This proposal will ruin the country life that we so cherish in this community. Please do not let Milan spoil our little slice of heaven to satisfy their investors.

Thank you for your consideration.

Cindi Keefer
Resident of OPA
December 21, 2018

Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Ave.
Orange, CA 92866

Re: Trails at Santiago Creek

Dear Mr. Garcia,

I am a resident of Orange and I oppose the development called, “Trails at Santiago Creek.”

Thank you,

Dr. Diane Kelley

Dr. Diane Kelley
I oppose the development called "Trails of Santiago Creek"

892 Jons Way
O.P.A.
Mr. Garcia,

I STRONGLY OPPOSE THE DEVELOPMENT CALLED, 'TRAILS AT SANTIAGO CREEK'.

Thank you.

Kevin Koo
concerned citizen of city of Orange
Mr. Robert Garcia,

I am against this project.

I dont think there should be any homes built on the Sully Miller property for all the reasons stated on the Update. It should remain as open space.

Jackie Kovach
I oppose the development called "Trails at Santiago Creek"

Rob Kurowski
OCE Printing & Bindery
2474-A North Glassell Street
Orange, California 92865
(714) 974-2626 Voice
(714) 998-0930 Fax
rob@oceprinting.net

"We Do More Than Envelopes"

A referral is the greatest compliment you can give us!
Please let it be know that I oppose the development called, “Trails at Santiago Creek”. The City and its council MUST not allow this. Too many City of Orange officials are turning their backs on what is proper and ethical. This will turn ugly for the City if it is allowed!

Tom Lauderdale
I oppose the development at the Sully Miller site called, "Trails at Santiago Creek," proposal by Milan REI X.

David

David Letourneau
Robert Garcia

From: mark litman <marklitman9@gmail.com>
Sent: Tuesday, December 25, 2018 9:46 AM
To: Robert Garcia
Subject: [BULK] STOP TRAILS AT SANTIAGO CREEK

Importance: Low

I oppose the development called “Trails at Santiago Creek”!!

Sent from my iPhone
Robert Garcia

From: Andy Long <andy1990@gmail.com>
Sent: Sunday, December 30, 2018 8:15 PM
To: Robert Garcia
Subject: I oppose the development of Trails at Santiago Creek.

I oppose the development of, "Trails at Santiago Creek". I lived in Orange for my entire life. My fiance and I just bought a new house in the community and it is important that this development does not go through. Thank you!

Sincerely,
Andy Long
I oppose the development called Trails at Santiago Creek

Jason Martin
CWI
Robert Garcia

From: suzannejmartin@ca.rr.com
Sent: Tuesday, December 18, 2018 10:33 AM
To: Robert Garcia
Subject: Opposing Trails at Santiago Creek

Robert,

I OPPOSE the development called "Trails at Santiago Creek"

Suzanne Martin

~Life is not measured by the number of breaths we take, but by the moments that take our breath away!~

~One reason why horses and birds are happy is because they don't spend a lot of time trying to impress other horses and birds~
Robert Garcia

From: Suzanne Martin <suzannejmartin@ca.rr.com>
Sent: Thursday, December 20, 2018 6:15 AM
To: Robert Garcia
Subject: Opposing Trails at Santiago Creek

Robert,

I OPPOSE the development called 'Trails at Santiago Creek'

Suzanne Martin

"Life is not measured by the number of breaths we take, but by the moments that take our breath away!"

"One reason why horses and birds are happy is because they don't spend a lot of time trying to impress other horses and birds"
I am a 35 year resident, taxpayer and voter in ORANGE. I live within 1/4 mile of the "TRAIL OF SANTIAGO CREEK" PROSPECT. I OPPOSE THIS PROJECT.

Please call to discuss 714-493-6967

Thanks

TIM MCALELE

COMMUNITY DEVELOPMENT RECEIVED JAN 02 2019 CITY OF ORANGE

BERKSHIRE HATHAWAY HomeServices California Properties

Opening doors to the American Dream

Chris McKeen 714.308.6055 | Jen McKeen 714.423.2561

Cal.BRE# 01609205 | Cal.BRE# 01609219

A member of the franchise system of Berkshire Hathaway, LLC
Robert Garcia

From: Kathy McNeil <kathybmcneill@gmail.com>
Sent: Sunday, December 30, 2018 9:08 PM
To: Robert Garcia
Subject: Oppose Development Called "The Trails at Santiago Creek"

I use the trails at Santiago Oaks as a mountain biker & hiker. I believe strongly that the development called, The Trails at Santiago Creek will negatively impact the entire City of Orange and Orange Park Acres if it were approved. I oppose this development and wanted you to know my thoughts on this.

Thank you,
Kathy McNeill
December 22, 2018

Mr. Robert Garcia, Senior Planner
City of Orange
360 E. Cherry Avenue
Orange, CA 92866

Dear Robert,

The purpose of this letter is for us to advise you and the City of Orange Planning Department that we are strongly opposed to Trails of Santiago Creek' proposal of Mill and Reel Ave.

We have been home owners now for over 20 years in Orange Park Acres at 7922 E. Lakeview Trail in Orange, CA 92869. Our is the 2nd residence from the back gate. We have been considering a possible downsizing of our home but have not done so yet.

Please list us as a 'NO' on this proposal.

Thank you in advance,

Cliff Melson
7922 E. Lakeview Trail
Orange, CA 92869

wife Doris
From: Byung taek Min <minbyungtaek40@gmail.com>
Sent: Saturday, December 22, 2018 3:18 PM
To: Robert Garcia
Subject: I oppose the development Trails at Santiago

CREEK'}
I oppose the development called, “Trails at Santiago Creek”

Emily Moore
I oppose the development called "trails at Santiago creek".

-Megan Moore
I oppose the development called Trails at Santiago Creek!  
Sincerely, Dr Steve Moore

Sent from my iPhone
I oppose the Development called Trails at Santiago Creek

Thank you

Leo Moyeur
I oppose the development called "Trails at Santiago Creek".

Thank you,

Sandi Litman
515 north broadmoor trail
Orange, Ca 92869
714.782.2797

Sent from my iPhone
From: Carol Natividad <xmasfamily@me.com>
Sent: Wednesday, December 19, 2018 7:03 PM
To: Robert Garcia
Subject: OPA

My name is Carol Natividad and I am an Orange Park resident. I am writing this to make you aware that I support the OPA Specific Plan and oppose anything not following it.

Thank you
Carol Natividad.
714-473-8800

Sent from my iPhone
Hello Mr. Garcia,

My name is David Natividad and I am a resident of Orange Park Acres.

I'm writing to make you aware I support the preservation of the OPA specific plan and oppose anything that does not follow it.

Thank you
My name is Stephen and I'm an OPA home owner and I wish to support the OPA plan and oppose anything that doesn't follow that plan.

Sent from my iPhone
I oppose the development called Trails at Santiago Creek.

Sent from my iPhone
Dear Mr. Garcia:

As a resident of the East Orange community I am strongly opposed to the development known as “Trails at Santiago Creek.” Please look out for the citizens of the community and not for a commercial developer wanting to turn our community into a giant housing development.

Thank you
John O’Leary
1645 N Gymkhana St
Orange, CA 92869

Sent from my iPad, please forgive typos
Dear Mr. Garcia,

I am writing to express my opposition to the proposed development at the old Sully Miller Mining site on Santiago Blvd. in Orange.

The development is environmentally unsound and this issue was already correctly adjudicated by the City Council and the citizens of Orange last go around. Please remain true to your constituents and not sell them out for the financial gain of the developer while creating liability for the City of Orange.

Thank you,

James F/ Philipp

10752 Meads Ave.
Orange, CA 92869

Orange Resident for 23 years
Robert Garcia

From: nicole <glou44@yahoo.com>
Sent: Friday, December 28, 2018 2:39 PM
To: Robert Garcia
Cc: editor@foothillsentry.com
Subject: I oppose Milan development

Dear Mr. Garcia,

I strongly oppose the development called, “Trails at Santiago Creek”.

Thank you for your time,
Nicole Photoglou
TO ROBERT GARCIA

I OPPOSE THE DEVELOPMENT CALLED "TRAILS AT SANTIAGO CREEK."

THANK YOU FOR YOUR TIME AND ATTENTION TO THIS MATTER,

VALENTINA RANG

COMMUNITY DEVELOPMENT RECEIVED
JAN 02 2019
CITY OF ORANGE
BERKSHIRE HATHAWAY
HomeServices
California Properties

Opening doors to the American Dream

CHRIS McKEEN 714.308.6055
JEN McKEEN 714.423.2561

CALIF. B. #0131719
CALIF. B. #0137979
A member of the franchise system of BHHS Affiliates, LLC.
This project must be stopped. It is our understanding it violates multiple sections of the California Environmental Quality Act which I am sure you are aware of.

Our family and the entire community is tired of the Milan Group attempting to subvert the law and regulations for the properties they own in Orange. They do not have the right to do whatever they want. The City's General plan as well as Orange Park Acres General plan are vital to the well being of the area. Milan can and should provide a reasonable proposal that meets their needs as well conforms to the law and general plans.

Thomas and Deborah Rapport
566 N Turnabout Rd, Orange, CA 92869
Dear Mr. Garcia:

My husband and I oppose the development called, “Trails of Santiago Creek”. We are asking your support to stop this development.

Thank you.

Sincerely,

Jayne and Art Reynolds
227 S. Calle Grande
Orange, CA 92869
December 20, 2018

Robert Garcia
City of Orange, CA 92866
300 E. Chapman Ave
Orange, CA 92866

Re: Milan REI X Development
"Trails at Santiago Creek"

We are opposed to the above development by Milan!!
STOP!! DO NOT ALLOW!!

Thank you.

Kim Riechmann
5906 E. Teton
Orange, CA 92867
Mr. Garcia,

I am writing to express opposition to the development project called Trails at Santiago Canyon.

Thank you,

Craig Rizzi
Orange Park Acres resident

Sent from my iPhone
To Whom It May Concern:

As homeowners in Orange Park Acres for over 22 years, my wife and I **OPPOSE** the development called "Trails at Santiago Creek".

Sincerely,

Daniel and Karen Rodiles
LET'S KEEP OPA THE WONDERFUL COMMUNITY IT IS...WE OPPOSE RDEIR AND RUINING OUR COUNTRY LIKE COMMUNITY. LOOK WHAT HAPPENED TO YORBA LINDA!! KEN AND SUE RUTTEN PHEASANT RUN
Sent from my iPhone
Hi Robert,

I'm writing this email to let you know that I oppose the development called "Trails at Santiago Creek". Please help us save the rural atmosphere that we live and cherish in our little slice of heaven known as Orange Park Acres.

Thank you!

Alice Schultz
Hi Robert,

I'm writing this email to let you know that I oppose the development called "Trails at Santiago Creek". Please help us save the rural atmosphere that we live and cherish in our little slice of heaven known as Orange Park Acres.

Thank you!

Heather Schultz
Robert Garcia

From: osendowsky@os-cpa.com
Sent: Monday, December 31, 2018 11:00 AM
To: Robert Garcia
Subject: Opposition

Robert Garcia, Senior Planner
City of Orange

I oppose the development called, "Trails at Santiago Creek."
Robert Garcia
Senior Planner
City of Orange
300 E Chapman Ave
Orange, Calif 92866
Hope lifts us up and carries them to a place of peace.

In deepest sympathy,

Julie Shaw

F. Oppose the development at Santiago Creek
Robert Garcia, Senior Planner  
City of Orange  
300 E. Chapman Ave.  
Orange, CA 92866

Robert C. Stumpf  
7230 E. Pony Ct  
Orange, CA 92869

Ref: Trails at Santiago Creek

I have been advised to address this letter to you as Senior Planner for the City of Orange in reference to Milan REL. proposal for project “Trails at Santiago Creek”, In the City of Orange.

I want to state, For The Record, that we are very “Opposed to the Development Called Trails at Santiago Creek” being proposed by Milan REL X.

We understand that Milan is a Corporation with deep pockets that has been pushing the City of Orange, for the last few years, to change it’s zoning laws to allow them to build on land that is not currently zoned for houses at the Sully Miller site and Orange Park Acres.

We urge the city of Orange to deny Milan’s proposal & preserve our historic, semi-rural Community.

Sincerely,

Robert & Emiko Stumpf  
Tel 714-997-8412  
bobstumpf@outlook.com
Robert Garcia

From: Vivien Swanson <vivzbiz@so.cal.rr.com>
Sent: Tuesday, January 1, 2019 7:28 PM
To: Robert Garcia
Subject: Orange Park Acres Specific Plan Plan

Mr. Richard Garcia City Planner,

Please understand, Mr. Garcia, that there is a large number of us here in Orange Park Acres who are very much opposed to Milan's altering the Specific Plan. We are vehemently opposed to the Trails at Santiago Creek and any change to the Orange Specific Plan.

Please do your part in protecting this beloved community.

Thank you,
Vivien Swanson
20172 Hillside Drive
Orange, Ca 92869
I oppose the development called "Trails at Santiago Creek"

Gisella Tellez

Chandler Ranch Rd
High Hoarse Trails resident
I oppose the development called, The Trails at Santiago Creek

If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres.
I oppose the development called “Trails at Santiago Creek”.

Sincerely,
Joanna Tu
I oppose the development called "Trails at Santiago Creek".

Sincerely,
Van Tu
From: Amy Vail <asvconsult@aol.com>
Sent: Tuesday, December 18, 2018 12:01 PM
To: Robert Garcia
Subject: [BULK] I oppose the development called Trails at Santiago Creek

I oppose the development called Trails at Santiago Creek Sent from my iPhone
My name Rene' Valbuena
My address 20111 east Chapman Ave
Orange oak acre ranch
Calif 92869

I want to write note "I oppose this development called trails at Santiago creek Thank you From Rene Valbuena

Sent from my iPhone
From: Maria von Sprecken <mlloban@yahoo.com>
Sent: Thursday, December 20, 2018 9:10 AM
To: Robert Garcia
Subject: Trails at Santiago Creek

Please oppose the development called Trails at Santiago Creek.
Thank you
Maria von Sprecken

Sent from my iPhone
Robert Garcia

From: LARRY WAKEFIELD <tutuma2@sbcglobal.net>
Sent: Sunday, December 23, 2018 8:22 PM
To: Robert Garcia
Subject: opposing a development

"I OPPOSE THE DEVELOPMENT CALLED, "Trails at Santiago Creek"

Thanks U,
Bernice Wakefield
I oppose the development called Trail at Santiago Creek.

Lynda L. Waldrip

COMMUNITY DEVELOPMENT RECEIVED
JAN 02 2019
CITY OF ORANGE
From: Thomas Walsh <graduate.craftsmen@icloud.com>
Sent: Tuesday, December 18, 2018 12:01 PM
To: Robert Garcia
Subject: I oppose the development called Trails at Santiago Creek.
I oppose the development called, The Trails at Santiago Creek

If this project were to go through, I firmly believe it will negatively impact the entire City of Orange and Orange Park Acres.

Concerned Citizen of Orange,

Beverly Warren

Sent from my iPhone
Dear Mr. Garcia:

We are adamantly OPPOSED to the development called “Trails at Santiago Creek”.

Thank you for your time.

Concerned citizens,
Bruce and Barbara Weiner
Hi Robert-

Attached are my comments on the above item. Please circulate to the appropriate parties, including of course City Council.

Thank you

Martha Wetzel
7217 E. La Cumbre Drive
Orange, CA 92869
To: Robert Garcia

Comments on RDEIR for Sully Miller Property- Santiago Hills

City Council Members:

Please treat development in all parts of Orange equally with respect to existing zoning and planning documents and citizen input. In this latest round of Milan vs. Orange residents the applicant ignores East Orange and OPA planning documents and would seek to have some documents altered to suit his financial bottom line in his pesky purchase of years ago.

It is YOUR job as duly elected representatives to hold fast and defend all relevant documents to protect our beautifully varied areas of Orange and the citizens who choose to live there, be it Old Town or OPA.

You owe nothing to the developer- his purchase of this land was an investment risk and neither we nor future residents should be put at risk or disservice by bowing to his attempts to shore up his bottom line.

The same physical constraints leading to denial of previous development plans still exist with this newest version. They should not be made to go away by altering or ignoring documents which existed when he bought the land.

Please, use the tools at hand to procure the best use of this space for all of Orange, especially those neighbors who border the area. Do not bow to the developer. And remember, the best use could be no development at all!

Thank you for the opportunity to comment on this process.

Martha Wetzel
December 22, 2018

Robert Garcia, Senior Planner
City of Orange
300 E. Chapman Ave
Orange, CA 92866

RE: Milan REI X

As home owners in the City of Orange in an area known as Orange Park Acers for the past 32 years and supporter of this fine community I would like to make the following statement.

“The original city planners had a vision that ensured a unique development plan that the community of Orange bought into, was paid for by the homeowners of Orange, and supported by our life style. This includes open spaces, trails, stables and land set aside for recreation. Protect these areas.”

These areas are protected against development(s) like the proposed “Trails of Santiago Creek.” Understand the vision that our original city planners had, protect our area and way of life. The community asks you to stand against and oppose this development.

Sincerely,

Thomas J. Wittman

Cinda M. Wittman
I Oppose this Development Called, Trails at Santiago Creek

Ali Youssef
8123 East HillsDale
Orange, CA, 92869
SECTION 4: ERRATA

The following are revisions to the Recirculated Draft Environmental Impact Report (RDEIR) for the Trails at Santiago Creek Specific Plan. These revisions are minor modifications and clarifications to the document, and do not change the significance of any of the environmental issue conclusions within the RDEIR. The revisions are listed by page number. All additions to the text are underlined (underlined) and all deletions from the text are stricken (stricken).

4.1 - Changes in Response to Specific Comments

Executive Summary

Page ES-5, Paragraph 1

The following text has been revised to clarify that 15.4 acres of residential uses are allowed under the General Plan north of Santiago Creek. The following text has also been revised to note the correct reference to the Pre-Development Agreement Appendix.

Alternative FG consists of residential uses would be developed 15.4 acres north of Santiago Creek, with resource land use activities (sand, gravel, and materials recycling) occurring on 77.3 acres on both sides of the waterway. The General Plan allows 15.4 acres of residential uses north of Santiago Creek. Vehicular access would be taken from two points Mabury Drive. Resource land use activities would be located on 77.3 acres on both sides of the waterway. These activities would consist of the continuation of the existing materials recycling and backfilling operation.

Page ES-7, Paragraph 3

The following text has been revised to clarify the correct number of anticipated haul trips during the grading period. The RDEIR was very conservative in its estimate of anticipated tonnage per truckload and number of haul trips during project grading. It assumed 10 cubic yards of material per truckload and a total of 275,400 haul trips during an 18 month grading period. Since the RDEIR was circulated, a more accurate estimate of the number of total haul trips has been prepared. Assuming a capacity of 20 cubic yards per truckload and 1,377,000 cubic yards of combined export and import (500,000 cubic yards of export and 877,000 cubic yards of import), there would be a total of 137,900 haul trips, including 68,950 inbound trips and 68,950 outbound trips. Daily construction truck trips would be 350 per day over an 18-month period, assuming 3,500 cubic yards of material would be hauled per day over an 8-hour workday 5 days a week with a truck payload of 20 cubic yards per truck.

As discussed in Impact AIR-2, the project’s construction activities are estimated to generate a maximum of 199.47 pounds of NOx per day with implementation of mitigation measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NOx even after implementation of Mitigation Measures AIR-1a through AIR-1g. The project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions
estimates, contained in Appendix F, show that 196.17 of the 199.47 pounds of NOx are from off-site sources. As previously discussed, the project is anticipated to require up to 275,400 total haul trips during the grading period.

**Page ES-8, Paragraph 2**

The Recirculated Draft EIR erroneously noted an incorrect total number of dwelling units that would be developed under Alternative 1. However, the analysis of Alternative 1 was conducted assuming 40-50 single-family residential units would be developed under Alternative 1. The following text has been revised to clarify that the correct number of units Alternative 1 would develop is 40-50 and to clarify that 15.4 acres of residential is allowed under the General Plan.

This alternative consists of allowing residential development north of the Santiago Creek and the continuation of existing sand and gravel operations in accordance with the current City of Orange General Plan and Zoning designations.¹ As such, 15.4 acres of Low-Density as Residential (confirmed by the City of Orange Community Development Department) are allowed by the General Plan in the north-central portion of the site, north of Santiago Creek and abutting Mabury Ranch Road. Consistent with the General Plan’s density range of 2.1 to 6.0 units per acre and the existing R-1-8 Zoning, Alternative 1 would develop there is an allowable range of 32 to 92 residential homes, and a target of 77 to 50 single-family residential homes on this 15.4-acre residential land use parcel. The existing R-1-8 Zoning for the residential area would provide a maximum of 77 single-family dwelling units based on acre density and would yield approximately 40 to 50 single-family dwelling units (although a range of 32 to 92 dwelling units could be developed under the existing land use designations). Access to this residential parcel would be from Mabury Avenue.

**Pages ES-20 through ES-31, Table ES-2: Executive Summary Matrix**

In response to comment CDFW-4, Table ES-2 has been revised to reflect the correct, certified, Department-approved Soquel Canyon Mitigation Bank, whose service area extends to the project site. Additionally, as part of Master Response 8—Site Environmental Conditions, Table ES-2 has been revised to provide for further investigation and implementation with regard to Mitigation Measure HAZ-2a and Mitigation Measure HAZ-2b. Additionally, in Table ES-2, clarifying language has been added to the mitigation measures required for Impact AIR-3 and Mitigation Measure CUL-2. Mitigation Measure TRANS-5 was inadvertently included in the RDEIR as a mitigation measure; however, the improvements required by Mitigation Measure TRANS-5 are all design features that were identified in the traffic study and were already included in the project’s design. Therefore, Mitigation Measure TRANS-5 has been removed as a mitigation measure in its entirety.

¹ The Development within the Existing Land Use Designations Alternative corresponds to Alternative F in the PDA.
Table ES-2: Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 3.3—Air Quality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Impact AIR-3:</strong> The project may result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.</td>
<td><strong>Impact AIR-3:</strong> Implement Mitigation Measures AIR-1a through AIR-1g. However, the project may result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.</td>
<td>Significant and unavoidable impact.</td>
</tr>
<tr>
<td><strong>Section 3.4—Biological Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Impact BIO-3:</strong> The project may impact sensitive natural communities.</td>
<td><strong>MM BIO-3:</strong> Prior to the issuance of any grading permit in the areas designated as sensitive riparian communities (e.g., southern cottonwood-willow riparian forest or black willow scrub/ruderal), the project Applicant shall demonstrate to the satisfaction of the City that either of the following have been or will be accomplished: On- or off-site restoration or enhancement of sensitive riparian communities (e.g., southern cottonwood-willow riparian forest) at a ratio no less than 1:1 for permanent impacts. Temporary impacts will be restored to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 1:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank (e.g., Santa Ana Watershed Association [SAWA] Soquel Canyon Mitigation Bank). If mitigation is to occur on-site and/or off-site (i.e., not an in-lieu fee program), a mitigation and monitoring plan shall be prepared. The plan shall focus on the creation of equivalent habitats within disturbed habitat areas of the project site and/or off-site. In addition, the plan shall provide details as to the implementation of the plan, maintenance, and future monitoring. Mitigation for impacts to sensitive riparian communities shall be accomplished by on- or off-site restoration and/or enhancement (e.g., transplantation, seeding, and/or planting/staking of sensitive riparian species; salvage/dispersal of duff and seed bank; removal of large stands of giant reed within riparian areas).</td>
<td>Less than significant impact.</td>
</tr>
</tbody>
</table>

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2 Soquel Canyon Mitigation Bank is the only certified, California Department of Fish and Wildlife (CDFW)-approved mitigation bank whose service area extends to the project site. Currently, this bank does not have the creation credits necessary to accommodate the CDFW’s policy of “no net loss” of either wetland habitat values or acreage, nor does it sell species-specific credits (i.e., least Bell’s vireo credits).
## Table ES-2 (cont.): Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
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</thead>
</table>
| **Impact BIO-4:** The proposed project may impact federally protected wetlands. | **MM BIO-4:** Prior to the issuance of any grading permit for permanent impacts in the areas designated as jurisdictional features, the project Applicant shall obtain a CWA Section 404 permit from the USACE, a CWA Section 401 permit from the RWQCB, and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Game Code from the CDFW. The following would be incorporated into the permitting, subject to approval by the regulatory agencies:  
1. On- or off-site restoration or replacement of USACE/RWQCB jurisdictional waters of the United States/waters of the State at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). **Off-site restoration or enhancement** If any off-site restoration or enhancement is required, it will be provided at a ratio no less than 2:1 and may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., SAWASoquel Canyon Mitigation Bank).  
2. On- or off-site restoration or enhancement of CDFW jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). **Off-site restoration or enhancement** at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank (e.g., Soquel Canyon Mitigation Bank). | Less than significant impact. |

| **Section 3.5—Cultural Resources** | | |
| **Impact CUL-2:** Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered archaeological resources. | **Implement Mitigation Measure CUL-1 and:** **MM CUL-2:** During the ground disturbing activities in the areas depicted in Exhibit 3.5 1, a qualified archaeological and paleontological monitor shall be present on-site to observe earthwork activities. In the event of a discovery of an archaeological or paleontological resource, the monitor shall have the discretion to halt all ground disturbing activities within 50 feet of the find until it has been evaluated for significance. If the find is determined to have archaeological or paleontological **significance**, the procedures in Mitigation | Less than significant impact. |
Table ES-2 (cont.): Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure CUL-1 or Mitigation Measure CUL-3 shall be implemented. Monitoring may cease once all of the areas depicted in Exhibit 3.5 1 have been thoroughly disturbed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 3.8—Hazards and Hazardous Materials

**Impact HAZ-2**: The project may create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

**MM HAZ-2a**: A supplemental Phase II Environmental Site Assessment shall be conducted to further delineate the vertical and lateral extent of the contamination. The proposed enclosed structures shall be situated strategically, using supplemental Phase II Environmental Site Assessment data and DTSC’s review thereof, so that structures will not interfere with future remediation of any potential landfill gas migration; this shall be demonstrated in connection with approval of any tentative maps for the project to allow for future remediation of any potential landfill gas migration. Prior to issuance of building permits for dwelling units in areas of the project site where vapor intrusion has the potential to occur, the applicant shall prepare and submit plans to the City of Orange, DTSC, or the Local Enforcement Agency (which is the County of Orange Environmental Health Division) identifying vapor intrusion abatement measures for trichloroethylene (TCE) and methane. Areas where vapor intrusion has the potential to occur are those identified in the Phase II Environmental Site Assessment.

The Phase II Environmental Site Assessment shall be conducted in substantial compliance with applicable guidance documents, including but not limited to the DTSC Advisory—Active Soil Gas Investigation and Final Guidance for Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. The Phase II Environmental Site Assessment shall use current DTSC HHRA Note 3 and Regional Screening Levels established by the U.S. Environmental Protection Agency. Following preparation of the Phase II Environmental Site Assessment, a soil risk management plan shall be prepared to address any discovery of previously unknown contamination and shall be submitted to DTSC. These reports shall be conducted pursuant to applicable DTSC advisories, and abatement shall be implemented as directed by DTSC. Such abatement measures may include but are not limited to vapor barriers or passive/active venting systems, as determined by the appropriate regulatory agency, unless determined not to be necessary by the City in consultation with the Local...
Table ES-2 (cont.): Executive Summary Matrix

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforcement Agency. All occupied structures within a 1,000 foot radius of the landfill shall include the</td>
<td>Enforcement Agency. All occupied structures within a 1,000 foot radius of the landfill shall include the following structural controls to limit the potential for landfill gas accumulation (unless such controls are determined not to be necessary by the City in consultation with the Local Enforcement Agency): (1) a geomembrane between the slab and the subgrade; (2) a permeable layer with venting pipe between the geomembrane; and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures. The soil risk management plan shall include, among other provisions, worker safety practices and procedures for discoveries of hazardous materials, including those already identified at the site. If DTSC concludes that additional mitigation is needed, the applicant shall work with DTSC and the City to jointly develop additional mitigation measures that meet residential standards. The approved abatement measures shall be incorporated into project building plans. Design plans for: 1) any occupied structures within 1,000 feet of the landfill boundary; and/or 2) structural systems to prevent gas-related hazards are required to be reviewed and approved by the Local Enforcement Agency (which is the County of Orange Environmental Health Division). <strong>MMS Z-2b</strong>: Prior to issuance of grading permit for construction of the residential portion of the project, the project applicant shall retain a qualified hazardous materials contractor to remove all soil containing Total Petroleum Hydrocarbons in excess of residential development standards set forth by the California Department of Toxic Substances Control (DTSC) or other applicable regulatory agency. Soil removal and disposal shall occur in accordance with DTSC (or other applicable agency) guidelines. Additional groundwater sampling shall be conducted under the guidance of DTSC, focused on the area within 1,000 feet of the Villa Park landfill, to assess whether TPH, methane, and/or VOCs have impacted groundwater at levels that generate either significant human health or ecological risk, which was encountered at depths of 20 to 50 feet bgs. If the groundwater is affected, a multi-media risk assessment shall be conducted under the guidance of DTSC, and abatement measures as required by DTSC shall be implemented, subject to final confirmation by the City. The applicant shall submit documentation to the City of Orange in the form of confirmatory soil and groundwater sampling results verifying that this...</td>
<td></td>
</tr>
</tbody>
</table>
mitigation measure was successfully implemented as part of the grading permit application for this property. All environmental investigations, sampling and/or remediation for the project site shall be conducted under a workplan approved and overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup, such as DTSC and/or the Regional Water Quality Control Board (RWQCB). As part of proper construction operations and maintenance, any construction areas that are found to contain contaminated soils shall be excluded using a security fence. All contaminated soils shall then be excavated and disposed of off-site in accordance with the rules and regulations of: US Department of Transportation (USDOT), USEPA, CalEPA, CalOSHA, and any local regulatory agencies. All retention and detention features used during construction would be lined to prevent infiltration through contaminated soils. Post-construction retention features shall be lined to prevent infiltration of groundwater.

Section 3.16—Transportation and Traffic

Impact TRANS-5: The project may substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

MM TRANS-5: Prior to issuance of the first certificate of occupancy, the City of Orange shall verify that the Applicant has made improvements to traffic circulation in the area and ensured that adequate ingress and egress to the project site is provided, as follows:

- Project Driveway/Nicky Way at East Santiago Canyon Road:
  - Construct the north leg of the intersection and provide one inbound lane and two outbound lanes (i.e., one dedicated left turn lane and one shared through/right-turn lane).
  - Widen and/or restripe East Santiago Canyon Road to provide one eastbound left-turn lane, one westbound right-turn lane and a third westbound through lane.
  - A five-phase signal has been installed with protected left-turn phasing in the east-west direction and permissive phasing in the north-south direction.

- Cannon Street at Taft Avenue:
  - Widen and/or restripe Cannon Street to provide a third northbound through lane.
  - No mitigation is necessary.

Less than significant impact.
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Section 1, Introduction

*Page 1.1, Table 1-1: DEIR Comment Letters, Row 3*

In response to comment VILLA PARK-1, the following correction has been made to reflect the correct signatory for the City of Villa Park DEIR letter.

<table>
<thead>
<tr>
<th>Status</th>
<th>Affiliation</th>
<th>Signatory</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Agencies</td>
<td>City of Irvine</td>
<td>Melissa Chao, Senior Planner</td>
<td>March 9, 2018</td>
</tr>
<tr>
<td></td>
<td>Department of Toxic Substances Control</td>
<td>Johnson P. Abraham, Program Manager</td>
<td>March 20, 2018</td>
</tr>
<tr>
<td></td>
<td>City of Villa Park</td>
<td>Karen Goebel, Assistant Field Supervisors; Jonathan Snyder Raynald F. Pascua, Planning Manager</td>
<td>March 24, 2018</td>
</tr>
<tr>
<td></td>
<td>Santa Ana Regional Water Quality Control Board</td>
<td>Keith Person, Regional Salt and Nutrient Coordinator</td>
<td>March 28, 2018</td>
</tr>
</tbody>
</table>

Section 2, Project Description

*Page 2-51, Paragraph 2*

In response to comment OCTA-1, the following correction has been made with regard to trail pavement.

> A variety of recreational trails for combined uses of hiking, bicycling, and horseback riding will traverse the project site as described in the following. Trails are proposed to be unpaved (decomposed granite or similar) in keeping with the natural setting, with the exception of Trail E, which is proposed to have an all-weather surface, as described below.

*Page 2-55, Paragraph 2*

In response to comment VILLA PARK-4, the following clarifying text has added with regard to East Santiago Canyon Road.

Regional access to the site is provided via the SR-55 Freeway, SR-91 Freeway, and the SR-241/SR-261 Freeways (Toll Roads). The principal local network of streets serving the proposed project includes East Santiago Canyon Road and Cannon Street. East Santiago Canyon Road becomes Villa Park Road, west of Hewes Street, and regional access to the project site from SR-55 is through the City of Villa Park on Villa Park Road. Properties immediately adjacent to Villa Park Road are predominately single-family residences. Villa Park Elementary School is approximately 200-feet from Villa Park Road and approximately 1.5 miles from the project site.

*Page 2-56, Paragraph 10*

In response to comment OCTA-3, the following clarifying text has been added with regard to pedestrian circulation.

There is no public sidewalk on the north side of Santiago Canyon Road abutting the project site or west of the site. Lastly, there are existing public sidewalks on both the east and west...
sides of Cannon Street south of East Santiago Canyon Road. However, sidewalks are not provided on the east or west side of Cannon Street between the bridge over Santiago Creek and East Santiago Canyon Road. The pedestrian circulation on the west side of Cannon Street is provided via a multi-use path (Class I) that serves both pedestrian and bicycling activities. There are no existing sidewalks along the Villa Park Landfill frontage on either East Santiago Canyon Road or Cannon Street.

**Page 2-61, Paragraph 3**

In response to comment OCTA-5, the following revisions have been included to clarify that the Santiago Creek Bike Trail is unpaved and does not serve all-weather conditions.

A variety of public multi-use recreation trails will traverse the project site, providing shared use of hiking, biking and horseback riding on decomposed granite trail surfaces. Along the north side of East Santiago Canyon Road, in addition to the existing Class II bike lane, an off-street recreational unpaved trail, which does not serve all-weather conditions, will extend along the entire length of the project site. This unpaved trail will provide continuity from the existing trail that parallels the roadway east of the project site, with the intention of connecting to future planned trails off-site to the west (provided by others). This 10-foot-wide unpaved trail will be separated from East Santiago Canyon Road by a minimum 6-foot-wide landscaped parkway measured from the back of curb within a minimum 18-foot-wide easement, as per the City of Orange Recreational Trail Master Plan (RTMP) Detail #2.

**Section 3.1, Aesthetics, Light, and Glare**

**Exhibit 3.1-2, Open Space Sections**

In response to comment Wittwer_Parkin-11, a new exhibit, Exhibit 3.1-2, Open Space Sections, is added to Section 3.1, Aesthetics, Light, and Glare.

**Section 3.3, Air Quality**

**Page 3.3-34, Paragraph 6**

The following text has been revised to reflect the revised number of anticipated haul trips during construction. The RDEIR conservatively estimated the anticipated tonnage per truckload (10 cubic yards) and number of haul trips (275,400) during project grading. The correct number of total haul trips has since been more accurately estimated to be 137,900.

Based on applicant-provided information, it was assumed that construction of the project would begin in January of 2019 and would last approximately four and one half years. A conceptual construction schedule is provided in Table 3.3-6. There are no existing buildings or hardscape on-site, therefore, the demolition phase would not be necessary. During grading, the project is expected to require the import of approximately 877,000 cubic yards of new material and the removal of approximately 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10 to 20 cubic yards per load. Based on this information, it was estimated that the project would require up to 275,400 to 137,900 haul trips during the 1.5-year grading period.
Notes:
1. Sections are preliminary and for diagrammatic purpose only. Trail and residential lot elevations and trail alignment are subject to change pending final plan design, submittal and review.
2. Tree placement as depicted is conceptual. Tree heights as shown are 15’ to 30’ and represent 2-3 years growth after planting. Trees will grow to mature heights of approximately 20’ to 60’-70’ pending species.
Page 3.3-37, Paragraph Below Table 3.3-9

As shown in Table 3.3-9, the project’s construction activities are estimated to generate a maximum 199.47 pounds of NOx per day with implementation of Mitigation Measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NOx even after implementation of Mitigation Measures AIR-1a through AIR-1g. As shown summarized in Table 3.3-9, the project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions estimates, contained in Appendix F, shows that 196.17 pounds of the 199.47 pounds of NOx are from off-site sources. As previously discussed, the project is anticipated to require up to 275,400 137,900 total haul trips during the grading period. Because the exceedance is largely a result of the anticipated haul trips, feasible and enforceable mitigation measures to reduce the impact are limited.

Section 3.4, Biological Resources

Page 3.4-50, Paragraph 6

In response to comment CDFW-4, the following paragraph, which is part of Mitigation Measure BIO-3, has been revised to reflect the correct, certified, Department-approved Soquel Canyon Mitigation Bank, whose service area extends to the project site.

On- or off-site restoration or enhancement of sensitive riparian communities (e.g., southern cottonwood-willow riparian forest) at a ratio no less than 1:1 for permanent impacts. Temporary impacts will be restored to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). Off-site restoration or enhancement at a ratio no less than 1:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank (e.g., Santa Ana Watershed Association [SAWA] Soquel Canyon Mitigation Bank).3

Page 3.4-52, Paragraph 3

In response to comment CDFW-4, the following paragraph, which is part of Mitigation Measure BIO-4, has been revised to reflect the correct, certified, Department-approved Soquel Canyon Mitigation Bank, whose service area extends to the project site.

1. On- or off-site restoration or replacement of USACE/RWQCB jurisdictional waters of the United States/waters of the State at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-project conditions (i.e., pre-project contours and revegetate with native species, where appropriate). If any off-site restoration or enhancement is required, it will be provided at a ratio no less than 2:1 and may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program (e.g., SAWA Soquel Canyon Mitigation Bank).

3 Soquel Canyon Mitigation Bank is the only certified, California Department of Fish and Wildlife (CDFW)-approved mitigation bank whose service area extends to the project site. Currently, this bank does not have the creation credits necessary to accommodate the CDFW’s policy of “no net loss” of either wetland habitat values or acreage, nor does it sell species-specific credits (i.e., least Bell’s vireo credits).
Section 3.5, Cultural Resources

Page 3.5-23, Paragraph 2

In response to comment Wittwer_Parkin-38, the following correction is made to Mitigation Measure CUL-2.

If the find is determined to have archaeological or paleontological significance, the procedures in Mitigation Measure CUL-1 or Mitigation Measure CUL-3 shall be implemented. Monitoring may cease once all of the areas depicted in Exhibit 3.5-1 have been thoroughly disturbed.

Section 3.8, Hazards and Hazardous Materials

Exhibit 3.8-1, Soil Matrix Core and Soil Vapor Boring Locations Map

In response to comment OCWR-8, a new exhibit, Exhibit 3.8-1, Soil Matrix Core and Soil Vapor Boring Locations Map, is added to Section 3.8, Hazards and Hazardous Materials.

Page 3.8-13, Paragraph 2

In response to comments DTSC-3, DTSC-4, SMW-7, SMW-32, and SEARS 2-10, the following clarifying text is added to Mitigation Measure HAZ-2a and Mitigation Measure HAZ-2b to ensure that further investigation and implementation of abatement measures occur under the direction of the City and DTSC.

MM HAZ-2a  A supplemental Phase II Environmental Site Assessment shall be conducted to further delineate the vertical and lateral extent of the contamination. The proposed enclosed structures shall be situated strategically using supplemental Phase II Environmental Site Assessment data and DTSC’s review thereof, so that structures will not interfere with future remediation of any potential landfill gas migration; this shall be demonstrated in connection with approval of any tentative maps for the project to allow for future remediation of any potential landfill gas migration. Prior to issuance of building permits for dwelling units in areas of the project site where vapor intrusion has the potential to occur, the applicant shall prepare and submit plans to the City of Orange, DTSC, or the Local Enforcement Agency (which is the County of Orange Environmental Health Division) identifying vapor intrusion abatement measures for trichloroethylene (TCE) and methane. Areas where vapor intrusion has the potential to occur are those identified in the Phase II Environmental Site Assessment.

The Phase II Environmental Site Assessment shall be conducted in substantial compliance with applicable guidance documents, including but not limited to the DTSC Advisory—Active Soil Gas Investigation and Final Guidance for Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. The Phase II Environmental Site Assessment shall use current DTSC HHRA Note 3 and Regional Screening Levels established by the U.S. Environmental Protection Agency. Following preparation of the Phase II Environmental Site Assessment, a soil risk management plan shall be...
prepared to address any discovery of previously unknown contamination and shall be submitted to DTSC. These reports shall be conducted pursuant to applicable DTSC advisories, and abatement shall be implemented as directed by DTSC. Such abatement measures may include but are not limited to vapor barriers or passive/active venting systems, as determined by the appropriate regulatory agency, unless determined not to be necessary by the City in consultation with the Local Enforcement Agency. All occupied structures within a 1,000 foot radius of the landfill shall include the following structural controls to limit the potential for landfill gas accumulation (unless such controls are determined not to be necessary by the City in consultation with the Local Enforcement Agency): (1) a geomembrane between the slab and the subgrade; (2) a permeable layer with venting pipe between the geomembrane; and (3) automatic methane gas sensors with audible alarms in the permeable layer and inside the structures. The soil risk management plan shall include, among other provisions, worker safety practices and procedures for discoveries of hazardous materials, including those already identified at the site. If DTSC concludes that additional mitigation is needed, the applicant shall work with DTSC and the City to jointly develop additional mitigation measures that meet residential standards.

The approved abatement measures shall be incorporated into project building plans. Design plans for: 1) any occupied structures within 1,000 feet of the landfill boundary; and/or 2) structural systems to prevent gas-related hazards are required to be reviewed and approved by the Local Enforcement Agency (which is the County of Orange Environmental Health Division).

MM HAZ-2b

Prior to issuance of grading permit for construction of the residential portion of the project, the project applicant shall retain a qualified hazardous materials contractor to remove all soil containing Total Petroleum Hydrocarbons in excess of residential development standards set forth by the California Department of Toxic Substances Control (DTSC) or other applicable regulatory agency. Soil removal and disposal shall occur in accordance with DTSC (or other applicable agency) guidelines. Additional groundwater sampling shall be conducted under the guidance of DTSC, focused on the area within 1,000 feet of the Villa Park landfill, to assess whether TPH, methane, and/or VOCs have impacted groundwater at levels that generate either significant human health or ecological risk, which was encountered at depths of 20 to 50 feet bgs. If the groundwater is affected, a multi-media risk assessment shall be conducted under the guidance of DTSC, and abatement measures as required by DTSC shall be implemented, subject to final confirmation by the City.

The applicant shall submit documentation to the City of Orange in the form of confirmatory soil and groundwater sampling results verifying that this
mitigation measure was successfully implemented as part of the grading permit application for this property. All environmental investigations, sampling and/or remediation for the project site shall be conducted under a workplan approved and overseen by a regulatory agency with jurisdiction to oversee hazardous substance cleanup, such as DTSC and/or the Regional Water Quality Control Board (RWQCB). As part of proper construction operations and maintenance, any construction areas that are found to contain contaminated soils shall be excluded using a security fence. All contaminated soils shall then be excavated and disposed of off-site in accordance with the rules and regulations of: US Department of Transportation (USDOT), USEPA, CalEPA, CalOSHA, and any local regulatory agencies. All retention and detention features used during construction would be lined to prevent infiltration through contaminated soils. Post-construction retention features shall be lined to prevent infiltration of groundwater.

**Page 3.8-15, Paragraph 2**
The RDEIR includes erroneous text that does not apply to the current Trails at Santiago Creek project. Thus, the following text has been removed.

```
Finally, the proposed project would locate open space and recreation uses within the portion of the site that abuts the Villa Park Landfill. These uses would serve as a buffer between the former landfill and the residential uses that would be located in the eastern portion of the site. Therefore, development and operation of the proposed project would not expose persons to residual hazardous materials from past uses of the Villa Park Landfill. Impacts would be less than significant.
```

**Section 3.9, Hydrology and Water Quality**

**Exhibit 3.9-4, 100-Year Flood Hazard Areas**

In response to comment VILLA PARK-13, Exhibit 3.9-4, 100-Year Flood Hazard Areas, has been corrected to reflect a 1 percent chance of annual flood, not 0.1 percent, in Zone AE.

**Page 3.9-26, Paragraph 1**
The distance of the project site to Santiago Dam was correctly noted as 5 miles on Page 3.9-10, but erroneously noted as 1.3 miles on Page 3.9-26. The following text has been revised to correct this erroneous notation.

```
Santiago Dam is located 1.3 approximately 5 miles upstream of the project site.
```
Exhibit 3.9-4

100-Year Flood Hazard Areas

Legend

- Project Site

Special Flood Hazard Areas
- Zone AE - Within 1% chance annual Flood, base flood elevations determined
- Zone AE - Within 1% chance annual flood. Within floodway.

Other Flood Hazard Areas
- Zone X - Areas of 0.2% chance annual flood

Other Areas
- Zone X - Areas outside the 0.2% annual chance floodplain.

Source: CA Dept of Conservation, 2014
Section 3.14, Public Services

Page 3.14-7, Paragraph 4
In response to VILLA PARK-16, the following clarifying text has been added with regard to the nearest fire station to the project.

The nearest fire station to the project site is Orange Fire Station No. 8, located 1.75 miles from the project site at 5725 Carver Lane. Using an average travel speed of 25 miles per hour, it would take a fire engine responding from Station No. 8 to the project site 4 minutes, 12 seconds. For comparison purposes, the Fire Departments average response time was 3 minutes, 45 seconds in 2016. There is also Orange County Fire Authority (OCFA) Fire Station No. 23, approximately 0.64 mile east of the project site at 5020 East Santiago Canyon Road, Villa Park, CA 92869. However, the project site is located outside of OCFA jurisdiction boundaries.

Section 3.16, Transportation and Traffic

Page 3.16-17, Paragraph 5
In response to comment OCTA-6, the following clarify text has been included with regard to the Santiago Creek Bike Trail parking entrance.

Additionally, Class I bike paths (off-road bike paths) exist west of Jamboree Road, extending from Chapman Avenue to the Irvine Park, west of Hewes Street, extending from Bond Avenue to Villa Park Road, north of Villa Park Road, extending from Hewes Street to Cannon Street, and west of Cannon Street, extending approximately 1,000 feet north of East Santiago Canyon Road. At the northerly terminus of Santiago Creek Trail, where Santiago Creek crosses under Cannon Street, there is a trailhead that provides a gravel parking lot and is designated as the “Santiago Creek Bike Trail Parking Entrance.”

Page 3.16-84, Table 3.16-11: Existing With Project Peak-Hour Intersection Capacity Analysis (Without Sand and Gravel Credit)
In response to comment Wittwer_Parkin-66, the following correction has been made with regard to the intersection of Cannon Street at Taft Avenue.

<table>
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Page 3.16-120, Paragraph 5
In response to comment VILLA PARK-21, the following correction has been made with regard to East Santiago Canyon Road as a facility in the Orange County Congestion Management Program.

East Santiago Canyon Road is a facility that is identified in the Orange County Congestion Management Program. As discussed in Impacts TRANS-1 through TRANS-3, the proposed project can mitigate all of its impacts associated with deficient traffic conditions on East
Santiago Canyon Road. Thus, no conflicts with the Congestion Management Plan would occur. Impacts would be less than significant.

**Page 3.16-122, Paragraph 1**
The text below has been removed because the improvements required by Mitigation Measure TRANS-5 are design features that were identified in the project’s traffic study and were already incorporated into the project. Mitigation Measure TRANS-5 has therefore been removed from the RDEIR. Further, revisions to Mitigation Measure TRANS-5 were inadvertently included in the Final EIR’s Response to Comments. References to Mitigation Measure TRANS-5 have been removed throughout the Final EIR.

**MM TRANS-5:** Prior to issuance of the first certificate of occupancy, the City of Orange shall verify that the Applicant has made improvements to traffic circulation in the area and ensured that adequate ingress and egress to the project site is provided, as follows:

- **Project Driveway/Nicky Way at East Santiago Canyon Road:**
  - Construct the north leg of the intersection and provide one inbound lane and two outbound lanes (i.e., one dedicated left turn lane and one shared through/right-turn lane).
  - Widen and/or restripe East Santiago Canyon Road to provide one eastbound left-turn lane, one westbound right-turn lane and a third westbound through lane.
  - A five-phase signal has been installed with protected left-turn phasing in the east-west direction and permissive phasing in the north-south direction.

- **Cannon Street at Taft Avenue:**
  - Widen and/or restripe Cannon Street to provide a third northbound through lane.

**Page 3.16-123, Paragraph 1**
In response to comment OCTA-7, the following clarifying text is included with regard to the paved Class I facility being consistent with local and regional master planning policy documents.

The Class I Santiago Creek Bike Path follows the Santiago Creek corridor before terminating at Cannon Street. The proposed project would extend the trail through the project site to Santiago Oaks Regional Park. This would close a gap in the regional bicycle and pedestrian network. **The paved Class I facility will be consistent with local and regional master planning policy documents, such as the City of Orange Bicycle Master Plan (2001), County of Orange Major Riding and Hiking Trails and Off-Road Paved Bikeways Map, and the OCTA Commuter Bikeways Strategic Plan (2009).**

**Section 5.1.2, Alternatives to the Proposed Project**
The Recirculated Draft EIR Alternatives Section erroneously noted that the total number of dwelling units that would be developed under Alternative 1 would be 90 units, 77 units, and 40 units. It also erroneously noted that Alternative 1 would require a General Plan Amendment to remove the project site from the East Orange General Plan and the Orange Park Acres Plan. Moreover, it noted that the alternative would require the intersection of East Santiago Canyon Road/Nicky Way to be improved to provide turn lanes and improved access to the materials recycling and backfilling operation. However, these facts were erroneously noted in the RDEIR. The analysis of Alternative 1
was conducted assuming 40-50 single-family residential units would be developed under Alternative 1 and assuming no General Plan Amendment would be required. The Alternative 1 traffic analysis did not include improvements to East Santiago Road/Nicky Way. Therefore, the erroneous statements in the RDEIR are hereby revised and/or removed to clarify that Alternative 1 would yield 40-50 single-family dwelling units, would not require a General Plan Amendment, and would not require improvements to the intersection of East Santiago Canyon Road/Nicky Way. Specific revisions include the following:

**Page 5-2, Paragraph 6**
The following text has been revised to reflect the correct number of units Alternative 1 would develop and to clarify that the General Plan allows 15.4 acres of residential uses north of Santiago Creek.

This alternative consists of new residential development and the continuation of existing sand and gravel operations in accordance with the existing City of Orange General Plan designations. Residential uses would be developed on 15.4 acres north of Santiago Creek (7740 to 50 dwelling units), with sand and gravel activities occurring on 77.3 acres on both sides of the waterway. 40-50 dwelling units would be consistent with the General Plan's density range of 2.1 to 6.0 units per acre and The existing R-1-8 Zoning for the residential area would provide a maximum of 77 single-family dwelling units based on acre density and would yield approximately 40 to 50 single-family dwelling units (although a range of 32 to 92 dwelling units could be developed under the existing land use designations). The General Plan allows 15.4 acres of residential uses north of Santiago Creek. The Santiago Creek corridor would be designated for open space (16.5 acres). The Development within the Existing Land use Designations Alternative is depicted in Exhibit 5-1.

**Section 5.3, Alternative 1—Development within the Existing Land Use Designations**

**Page 5-1, Paragraph 5**
The following text has been revised to reflect the correct number of anticipated haul trips during construction of the project.

As discussed in Impact AIR-2, the project’s construction activities are estimated to generate a maximum of 199.47 pounds of NO\(_x\) per day with implementation of Mitigation Measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NO\(_x\) even after implementation of Mitigation Measures AIR-1a through AIR-1g. The project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions estimates, contained in Appendix F, show that 196.17 of the 199.47 pounds of NO\(_x\) are from off-site sources. As previously discussed, the project is anticipated to require up to 225,400 137,900 total haul trips during the grading period.
Page 5-11, Paragraph 1
The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

Residential uses would be developed on 15.4 acres north of Santiago Creek, with resource land use activities (sand, gravel, and materials recycling) occurring on 77.3 acres on both sides of the waterway. Consistent with the City of Orange General Plan's density range of 2.1 to 6.0 units per acre and the existing R-1-8 Zoning, there is an allowable range of 32 to 92 residential homes, and a target of 40 to 50 single-family residential units would be developed on this 15.4-acre residential land use parcel. The existing R-1-8 Zoning for the residential area would provide a maximum of 77 single-family dwelling units based on acre density and would yield approximately 40 to 50 single-family dwelling units, although a range of 32 to 92 dwelling units could be developed under the existing land use designations.

Page 5-11, Paragraph 2
The following text has been revised to remove improvements to the intersection of East Santiago Canyon Road/Nicky Way, which was erroneously included as a component of Alternative 1.

The intersection of East Santiago Canyon Road/Nicky Way would be improved to provide turn lanes and improved access to the materials recycling and backfilling operation.

Page 5-11, Paragraph 3
The following text has been revised to remove a sentence regarding the number of units, which was erroneously included as a component of Alternative 1.

The total number of dwelling units that would be developed under this alternative would be 90.

Page 5-11, Paragraph 6
The following text has been revised to remove a sentence regarding the requirement of a General Plan Amendment, which was erroneously included as a component of Alternative 1.

This alternative would require a General Plan Amendment to remove the project site from the East Orange General Plan and Orange Park Acres Plan.

Page 5-11, Table 5-1
The column labeled “Dwelling Units” has been revised to reflect the correct number of units Alternative 1 would develop. The column labeled “Acres” has been revised to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.
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</table>

**Page 5-11, Footnote 1**

The following text has been revised to reflect the correct reference to the Pre-Development Agreement.

The No Project Alternative/Existing Land Use Designations Alternative corresponds to Alternative F-G in the Pre-Development Agreement (PDA). Refer to Section 2, Project Description for further discussion of the PDA.

**Page 5-12, Paragraph 1**

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

**Aesthetics, Light, and Glare**

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

**Page 5-12, Paragraph 3**

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

**Air Quality**

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

**Page 5-12, Paragraph 4**

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.
Biological Resources

The Development within the Existing Land Use Designations Alternative consists of developing 7,740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-12, Paragraph 5

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

Cultural Resources

The Development within the Existing Land Use Designations Alternative consists of developing 7,740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-13, Paragraph 1

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

Geology and Soils

The Development within the Existing Land Use Designations Alternative consists of developing 7,740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-13, Paragraph 2

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

Greenhouse Gas Emissions

The Development within the Existing Land Use Designations Alternative consists of developing 7,740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-13, Paragraph 3

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.
Hazards and Hazardous Materials

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-14, Paragraph 1
The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

Hydrology and Water Quality

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-14, Paragraph 2
The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

Land Use and Planning

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-14, Paragraph 3
The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

Mineral Resources

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-14, Paragraph 4
The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.
Noise

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

Page 5-15, Paragraph 1

The following text has been revised to reflect the correct number of units Alternative 1 would develop.

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units within the project site, a net decrease of 66 78-88 dwelling units relative to the proposed project. The reduction in dwelling units would decrease the population growth attributable to this alternative by 195 123 to 154 persons relative to the proposed project.

Page 5-15, Paragraph 2

The following text has been revised to reflect the correct number of units Alternative 1 would develop.

Public Services

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units within the project site, a net decrease of 66 78-88 dwelling units relative to the proposed project. The reduction in dwelling units would reduce the population growth attributable to this alternative by 195 123 to 154 persons relative to the proposed project.

Page 5-15, Paragraph 3

The following text has been revised to reflect the correct number of units Alternative 1 would develop.

Recreation

The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units within the project site, a net decrease of 66 78-88 dwelling units relative to the proposed project. The reduction in dwelling units would reduce the population growth attributable to this alternative by 195 123 to 154 persons relative to the proposed project.

Page 5-15, Paragraph 4

The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

The Development within the Existing Land Use Designations Alternative consists of developing 40 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.
**Page 5-16, Paragraph 1**
The following text has been revised to reflect that Alternative 1 would not require improvements to East Santiago Canyon Road/Nicky Way, which was erroneously included in the RDEIR.

This alternative would also require improvements to the East Santiago Canyon Road/Nicky Way intersection, which would provide access to the resource extraction operations on the project site.

**Page 5-16, Paragraph 3**
The following text has been revised to reflect the correct number of units Alternative 1 would develop and to omit reference to 15.4 acres, which is the acreage that is allowed for residential in the General Plan north of Santiago Creek.

**Tribal Cultural Resources**
The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units on 15.4 acres on the north side of Santiago Creek, and maintaining the existing resource extraction activities on 77.3 acres of the project site.

**Page 5-16, Paragraph 4**
The following text has been revised to reflect the correct number of units Alternative 1 would develop.

**Utilities and Service Systems**
The Development within the Existing Land Use Designations Alternative consists of developing 7740 to 50 dwelling units within the project site, a net decrease of 7278-88 dwelling units relative to the proposed project. The reduction in dwelling units would reduce the population growth attributable to this alternative by 195123 to 154 persons relative to the proposed project.

**Section 6.0, Other CEQA Considerations**

**Page 6-1, Paragraph 4**
The following text has been revised to reflect the revised number of anticipated haul trips during construction of the project.

As discussed in Impact AIR-2, the project’s construction activities are estimated to generate a maximum of 199.47 pounds of NO\textsubscript{x} per day with implementation of Mitigation Measures AIR-1a through AIR-1g. As such, the project’s construction would continue to exceed the SCAQMD’s recommended regional threshold of significance for NO\textsubscript{x} even after the implementation of Mitigation Measures AIR-1a through AIR-1g. The project’s construction activities are only anticipated to exceed any of SCAQMD’s regional thresholds of significance during the combined site preparation and grading period. A review of the detailed emissions estimates, contained in Appendix F, shows that 196.17 pounds of the 199.47 pounds of NO\textsubscript{x} are from off-site sources. As previously discussed, the project is anticipated to require up to 275,400 137,900 total haul trips during the grading period.
Appendix F, Air Quality and Greenhouse Gas Supporting Information

In response to Wittwer-Parkin-42, the Final EIR includes updates to Appendix F. RDEIR Appendix F erroneously included air quality modeling results that were inconsistent with tables in the Air Quality Section of the RDEIR. The Final EIR provides updated modeling results that are consistent with the modeling results presented in the RDEIR Air Quality Section. All detailed modeling results and assumptions, which support the analysis and conclusions in the RDEIR Air Quality Section, are included in Appendix F.

Appendix R, City Resolution No. 3915

As part of Master Response 1—Plan Consistency, RDEIR Appendix G has been included to support the statement in the Final EIR that the OPA Plan is not a specific plan adopted pursuant to the specific plan statute. The Plan was adopted by City Resolution No. 3915 in December 1973, prior to the 1974 enactment of the specific plan statute. Resolution No. 3915 adopted the Plan as a land use element of the General Plan.

Appendix S, April 1, 2019 Memorandum from the City of Orange Community Development Director to the Director of OC Parks

As part of Master Response 6—Stewardship of Open Space, RDEIR Appendix H has been included to emphasize that as a component of the Specific Plan and Development Agreement, the project applicant is proposing to fund $4,100,000 in landscaping, trails, and other improvements for the Santiago Creek Greenway and open spaces.

Responses to Written Comments

Page 353, Response to COONRADT-6

The following text has been revised to reflect that the improvements required by Mitigation Measure TRANS-5 are design features that were identified in the project’s traffic study and are already incorporated into the project. As such, Mitigation Measure TRANS-5 has been removed.

The commenter states an opinion that East Santiago Canyon Road is overburdened with traffic and the project would add more traffic, potentially causing safety risks and hazards. Comment noted. Impacts related to traffic are discussed in RDEIR Section 3.16, Transportation and Traffic. As discussed in Section 3.16, Impact TRANS-2, impacts would remain significant and unavoidable after implementation of mitigation and would require a statement of overriding considerations to be adopted by the City prior to approval of the project. Potential hazards are discussed in Impact TRANS-5. As discussed, the project’s impacts related to safety hazards would be less than significant with implementation of Mitigation Measure TRANS-5, which would ensure adequate and ingress and egress to the site would be adequate.

Page 2-24, Paragraph 7

The following text has been revised to reflect an updated, more accurate estimate of construction truck trips.
During grading, the project would import approximately 877,000 cubic yards of new material, and remove 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10–20 cubic yards per load (plus the return of one empty truck). Based on this conservative assumption, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period. Thus, using this estimate, the technical analyses and discussions in the RDEIR assumes an accurate estimate of the number of haul trips that will be required the “worst case” scenario for the project. This allows the reader and decision makers to fully understand potential environmental impacts.

**Page 3-88, Response to SCAQMD-8**

The following text has been revised to reflect an updated, more accurate estimate of construction truck trips.

As indicated by the commenter, feasibility means, “being capable of being accomplished within a reasonable period of time.” The amount of soil hauling that would be required for the grading portion of construction activities would result in substantial numbers of trucks traveling to and from the site on a daily basis. In addition, the construction activities would likely involve different sets of construction contractors and haul companies to complete the project. If such a measure is required, a list of approved trucks that meet 2010 model year standards would have to be developed prior to those trucks coming on-site, and the contractor would have to implement multiple checkpoints to ensure that the trucks matched that list and no other trucks came on-site. Given that the project requires approximately 137,900 haul trips, (over 700 trips per day based on the estimated schedule) (approximately 350 trips per day based on the estimated 18 month schedule) and specific make and model of haul trucks can vary by contractor and within each contractor fleet, such a requirement could result in substantial delays in the construction schedule.

**Page 3-161, Response to SMW-47, Paragraph 2**

As stated in RDEIR Section 2, Project Description, page 2-55, current traffic volumes resulting from the existing on-site rock crushing operation generates approximately 686 daily trips, of which over 500 of those trips is truck traffic. Further, the RDEIR indicates that “the project would require up to 275,400 haul trips during the 1.5-year grading period,” resulting in approximately 700 trips per day.

**Page 3-163, Paragraph 2, Response to SMW-48**

The following text has been revised to reflect an updated, more accurate estimate of construction truck trips.

The amount of earthwork used in the analysis of air quality emissions is consistent with the project description and the Specific Plan. As discussed in Impact AIR-2, the project would import approximately 877,000 cubic yards of new material, and remove 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10–20 cubic yards per load (plus the return of one empty truck). Based on this information, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period.
trips during the 1.5-year grading period. Haul truck emissions were included in the analysis of regional emissions. The comment indicates, “the Project may expose nearby sensitive receptors to an elevated health risk, which would likely require the preparation of a health risk assessment.” However, as discussed in the Impact AIR-4, the RDEIR already includes a health risk assessment that evaluates both on-road and off-road emissions sources.

Page 3-197, Response to Wittwer-Parkin-19
The following text has been revised to reflect an updated, more accurate estimate of construction truck trips.

Please see Master Response 9—Soil Import/Export Numbers. As the commenter notes, the project would generate 275,400 haul trips. Further, the RDEIR indicates that “the project would require up to 275,400 haul trips The 137,900 haul trips during the 1.5-year grading period,” would resulting in approximately 700 trips per day. For a response to the commenter’s question about the baseline for rock crushing, please refer to Response Wittwer Parkin-10 above.

Page 3-198, Response to Wittwer-Parkin-21
The following text has been revised to reflect an updated, more accurate estimate of construction truck trips.

As discussed in Impact AIR-2, the project would import approximately 877,000 cubic yards of new material, and remove 500,000 cubic yards of silt. As a conservative estimate, it was assumed that each haul truck would have a capacity of 10 cubic yards per load (plus the return of one empty truck). Based on this information, it was estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period. Haul truck emissions were included in the analysis of regional emissions. Therefore, contrary to the commenter’s assertion, hauling trips were accounted for in the Air Quality Analysis conducted for the project and construction impacts were not underestimated. As discussed in the Impact AIR-4, the RDEIR already includes a health risk assessment that evaluates both on-road and off-road emissions sources.

Page 3-214, Response to Wittwer Parkin-76
The following text has been revised to reflect an updated, more accurate estimate of construction truck trips.

To fully analyze potential traffic, air quality and other potential impacts, it was conservatively estimated that the project would require up to 275,400 haul trips during the 1.5-year grading period. This estimate is based on the reasonable assumption that each haul truck would have a capacity of 10 cubic yards per load. This allows the reader and decision makers to fully understand potential environmental impacts. There is no evidence that this conservative estimate, or the underlying assumption, is wasteful, inefficient, or involves the unnecessary consumption of energy. Therefore, the energy section does not need to be revised to reduce the number of these trips or the trip length. Impacts were fully analyzed and determined to be less than significant.