4.4 - Hazards and Hazardous Materials

4.4.1 - Introduction

Purpose

The purpose of this section is to describe any existing hazards and hazardous materials, and potential impacts related to this topical environmental issue. This section also identifies mitigation measures to reduce any potentially significant hazards and hazardous materials impacts and describes the residual impact, if any, after imposition of the mitigation.

Hazardous materials are chemicals that could potentially cause harm during an accidental release or mishap; they are defined as being toxic, corrosive, flammable, reactive, irritant or strong sensitizer (i.e. a chemical that results in allergic reactions in people or animals). Hazardous substances include all chemicals regulated under the United States Department of Transportation "hazardous materials" regulations and the Environmental protection agency "hazardous waste" regulations. Hazardous wastes require special handling and disposal because of their potential to damage public heath and the environment. The probable frequency and severity of consequences from the use, transport or disposal of hazardous materials is affected by the type of substance, quantity used or managed, and the nature of the activities and operations.

Sources

Information in this section is based on the following sources:

- Environmental Data Resources Inc. (EDR) Map Report, December 1, 2005 (Appendix E).
- Salem Lutheran Church and School Specific Plan, Michael Madden Associates, April 30, 2011 (Appendix I).
- 2010 General Plan, City of Orange, March 9, 2010.
- City of Orange Municipal Code.
- Comments received during the public comment period. These comments are contained in Appendix A.

4.4.2 - Environmental Setting

The regional, vicinity, and site-specific environmental settings are described in more detail below.

Vicinity

In December of 2005, an EDR Radius Map Report was completed by Environmental Data Resources Inc. This report details the properties nearby the proposed project that have hazardous materials on site or that have a history of such material usage/storage onsite. The report found sites nearby the proposed project with hydrocarbons (such as above and below ground storage tanks) as well as

contaminated drinking wells. The EDR Radius Map Report indicated that underground storage tanks (UST) occur within approximately 0.5 mile of the project site, as detailed below:

Petroleum hydrocarbons are derived from crude oil, which is refined into various petroleum products such as diesel, gasoline, kerosene, lubricants, and heavy fuel oils. Hydrocarbons constituents include benzene, N-heptane, and toluene, and generate health effects such as cancer, leukemia, asthmatic bronchitis, kidney damage, and eye irritation. Hydrocarbons are stored in aboveground storage tanks (ASTs) and USTs (underground storage tanks). Leaking ASTs and USTs can result in contamination of groundwater sources or fire and explosion.

Underground Storage Tank: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's (SWRCB) Hazardous Substance Storage Container Database. A review of the UST list, as provided by EDR, and dated October 10, 2005, has revealed that there is 1 UST:

Larry Till Residence 20072 East Frank Lane Orange, CA 92869 UST U003879

Leaking Underground Storage Tanks (LUST): The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System. A review of the LUST list, as provided by EDR, and dated October 10, 2005, has revealed that there is 1 LUST site within approximately 0.5 mile of the project site, at:

Blue Diamond Materials 6145 Santiago Canyon Road Orange, CA LUST S105025371

Historical Underground Storage Tanks (HIST UST): A review of the HIST UST list, as provided by EDR, and dated October 15, 1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the project site, at:

6145 E Santiago Canyon Orange Plants 6145 E Santiago Canyon Orange Shop

Statewide Environmental Evaluation and Planning System (SWEEPS): This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early

1980s. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list. A review of the SWEEPS UST list, as provided by EDR, and dated June 1, 1994, has revealed that there is 1 SWEEPS UST site within approximately 0.25 mile of the project site, at:

Blue Diamond Materials 6145 Santiago Canyon Road

Review of Potential Hazardous Conditions in Project Vicinity

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information. A review of the Cortese list, as provided by EDR, has revealed that there is 1 Cortese site within approximately 0.5 mile of the project site, at:

Blue Diamond Materials, 6145 Santiago Canyon Road, Orange, CA

Site Conditions

The EDR report did not indicate that there is any specific hazardous contamination on site. The existing buildings on the Salem Lutheran Church and School property, which house the sanctuary and pre-school, were built and first occupied in 1969. The pre-school opened for students in 1976 followed by the opening of the elementary school in 1983. The elementary school building was completed in 1984 and the multi-purpose building and eight additional classrooms were occupied in 2000. It seems to be generally accepted that asbestos has the potential to be found in buildings that were constructed before 1980. Asbestos, lead and pesticides are hazardous materials that are of concern. Each of these materials is discussed in more detail below.

Asbestos

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals minded for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly found in acoustic insulation, thermal insulation, fireproofing, and in other building materials referred to as Asbestos Containing Materials (ACMs). 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 (Cal OSHA) defines asbestos containing materials as any material that contains 0.1 percent asbestos by weight.

Lead

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably 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.

Pesticides

A pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. The term pesticide applies to insecticides, herbicides, fungicides, and various other substances used to control pests. The health effects of pesticides depend on the type of pesticide. Examples of health risks posed by pesticides include cancer, nervous system damage, hormone or endocrine disruption, and eye or skin irritation.

4.4.3 - Regulatory Setting

Federal, State, and local city regulations pertain to the use and storage of hazardous materials. This section discusses each of the agency's roles in regulating hazardous materials.

Federal

Resource Conservation and Recovery Act

The 1976 Federal RCRA and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. Owners and operators of USTs had until December 1998 to meet the new tank standards. As of 2001, an estimated 85 percent of USTs complied with the required standard.

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably 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 has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Sections 25531, et seq., incorporate the requirement 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 (RMP). The RMP must be submitted to the appropriate local authorities, the designated local administering agency, and the EPA for review and approval.

Transport of Hazardous Materials

Transportation of hazardous materials is regulated by Caltrans, the California Highway Patrol, and Orange County Fire Authority, which is supported by the Orange Fire Department. Drivers must have a hazardous materials endorsement to operate a commercial vehicle carrying hazardous materials, including explosives. During the transport of materials, a route map must be maintained that indicates safe routing and safe stopping places along the route.

California Fire Code Article 77 states that a permit from the local fire department must be obtained for both the storage and use of explosive materials. In addition, the responsible party must file a \$100,000 corporate surety bond or have public liability insurance for the same amount. Section 7703 of the California Fire Code describes requirements for use, handling, and transportation of explosive materials.

Local

County of Orange

The County Environmental Health Division Certified Unified Program Agency coordinates six programs regulating hazardous materials and waste. The programs include management of hazardous waste, underground storage tanks, aboveground storage tanks, hazardous materials disclosure, business plan, and California accidental release. County and city fire agencies within the County have joined the Certified Unified Program Agency as participating agencies.

City of Orange Municipal Code

The City Municipal Code sets forth requirements regarding the adoption of Uniform Building Code (May 27, 2008 Edition, "Restrictions in the Fire District"). More specifically, Section 1603 of the code sets forth building restrictions for developments located in high hazard areas; those restrictions include fire-resistant protection of exterior walls and openings, fire-retardant roofs, and unenclosed under floor areas with allowable exceptions.

Orange Fire Department

The City recognizes that the handling, transport, and disposal of hazardous waste and hazardous materials pose a risk to the public and service providers. To reduce the risks associated with the use and handling of these materials, the City uses the criteria developed by the County Hazardous Materials Service Section for its own program. The City of Orange Fire Department provides oversight in the planning process by providing a department representative during the environmental review process. Additionally, the City supports the efforts of the department to enforce State "Rightto Know" laws, which require disclosure of information to the public regarding use, storage, and transport of hazardous materials.

4.4.4 - Significance Thresholds

According to Appendix G of the State CEQA Guidelines and the City's Local CEQA Guidelines, a project would normally have a significant effect on the environment if it would result in the following:

- 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 reasonable foreseeable upset and accident conditions involving the 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 complied 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 in the project area?
- 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?
- 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?

4.4.5 - Project Impacts

Impacts Not Found To Be Significant

The Initial Study determined that either no impacts or less than significant impacts would result from the following significance thresholds listed previously in Section 4.4.4:

- b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the 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 complied 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 in the project area?
- 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?
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Refer to the Initial Study in Appendix A for a complete discussion.

Potentially Significant Impacts

Significance thresholds deemed to be potentially significant are evaluated individually. Table 4.4-1 restates the significance threshold and gives the corresponding Draft EIR Impact Number:

Table 4.4-1: Hazards and Hazardous Materials
Significance Threshold and Corresponding Draft EIR Impact Number

	Significance Threshold - Hazards and Hazardous Materials	EIR Impact Number
a)	Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	Impact 4.4-1
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?	Impact 4.4-2

Routine Use

Impact 4.4-1

The project will 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 Operations

During the short-term site preparation construction phase, the proposed project could involve the transport, use, or disposal of relatively small quantities of routinely used but potentially hazardous materials such as vehicle fuels, oils, and transmission fluids.

Long-term Operations

There is the potential for some hazardous household materials to be used on site such as household cleaners to clean bathroom and kitchen facilities. Compliance with the mandatory obligations contained in Titles 8, 22, and 26 of the California Code of Regulations (CCR), Chapter 6.95 of the California Health and Safety Code, and applicable federal, State, and local regulations pertaining to hazardous waste materials would result in less than significant impacts related to hazardous waste materials. The multipurpose field will be used for occasional overflow parking on Sundays, and during special events. The occasional use of the multipurpose field for overflow parking of motor vehicles would not expose the users of the field to fluids from the motor vehicles that are left on the field once the vehicles have gone because any fluids deposited on the grass surface would be taken-up by the grass and removed off-site when mowed.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts were determined to be less than significant before mitigation.

Risk of Wildland Fires

Impact 4.4-2

The project will not 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.

Impact Analysis

The proposed project site is located in an established urban area not adjacent to but near open brush. The community also has stands of mature vegetation throughout and portions of the Orange Park Acres plan area have experienced evacuation during wildfires.

Short-term Operations

The Initial Study did not identify any short-term construction phase impacts from the proposed project related to wildland fires. Thus, no construction phase impacts are anticipated in the short-term.

Long-term Operations

As detailed in the Initial Study, the proposed project site is not adjacent to but near open brush, the community has mature vegetation throughout and portion of the Orange Park Acres plan area has been evacuated during wildfires. The proposed project site is approximately one-third of a mile from the nearest grassland/undeveloped area. Figure PS-1, Environmental and Natural Hazard Policy Map in the City of Orange General Plan (Edaw, Inc. 2009) illustrates that the project falls within the wildland high fire hazard Area or the wildland very high fire hazard area. Additionally, the City of Orange Fire Department was contacted to verify where the very high fire hazard zone and the high fire hazard zones are located. Doug Fackiner, Administrative Captain at the City of Orange Fire Department spoke with Margaret Partridge, Assistant Project Manager at Michael Brandman Associates (MBA) and based on that conversation, the project are area is not within a fire hazard area because the project site does not back up to grassland. The project site and surrounding area is already developed with buildings, landscaping and homes and does not backup to grassland areas that could expose the project site to a fire risk. Mr. Fackiner stated that areas north of Santiago Canyon Road fall within the wildland very high fire hazard area because fires come down from the hillsides and to the grassy areas north of Santiago Canyon Road (Fackiner, pers. comm.).

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Level of Significance After Mitigation

Impacts were determined to be less than significant before mitigation.