Table 6.1.1

Summary of Santiago Creek 100-year EV storm Bank Velocities - Low and Ponded Lake Level Conditions

velocities based on 100-year EV HEC-RAS analysis and Exhibit D

REACH	SOUTHERLY BANK						NORTHERLY BANK					
	existing ponded (ft/sec)	proposed ponded (ft/sec)	velocity change (ft/sec)[a]	existing low (ft/sec)	proposed low (ft/sec)	velocity change (ft/sec)[a]	existing ponded (ft/sec)	proposed ponded (ft/sec)	velocity change (ft/sec)[a]	existing low (ft/sec)	proposed low (ft/sec)	velocity change (ft/sec)[a]
116	0.47	0.47	0.00	27.19	27.28	0.09	0.57	0.57	0.00	27.50	27.59	0.09
117	0.84	0.81	-0.03	20.35	20.46	0.11	0.78	0.79	0.01	20.35	6.64	-13.71
118	2.78	1.33	-1.45	2.78	3.14	0.36	1.65	1.46	-0.19	13.71	14.36	0.65
119	1.58	1.69	0.11	4.66	5.29	0.63	1.38	8.07	6.69	7.03	8.07	1.04
120	1.48	1.60	0.12	3.81	4.15	0.34	1.49	1.72	0.23	5.25	14.66	9.41
121	2.70	3.60	0.90	25.52	12.22	-13.30	1.71	2.81	1.10	12.75	11.77	-0.98
122	3.66	3.82	0.16	12.50	9.87	-2.63	3.54	3.74	0.20	12.02	9.58	-2.44
123	4.55	4.79	0.24	15.44	17.75	2.31	4.44	4.80	0.36	14.96	17.80	2.84
124	3.53	4.20	0.67	6.35	7.55	1.20	4.34	6.34	2.00	11.87	14.39	2.52
125	2.34	3.35	1.01	5.69	4.11	-1.58	2.80	6.53	3.73	6.47	10.64	4.17
126	2.35	1.88	-0.47	4.18	1.81	-2.37	2.74	6.47	3.73	4.72	7.36	2.64
127	1.73	4.18	2.45	1.76	4.45	2.69	4.29	4.16	-0.13	7.04	4.42	-2.62
128	2.23	4.66	2.43	2.36	4.89	2.53	5.49	3.20	-2.29	6.84	3.44	-3.40
129	10.92	3.31	-7.61	10.92	15.52	4.60	18.44	7.41	-11.03	18.45	19.54	1.09
130	8.28	9.82	1.54	8.28	9.83	1.55	8.61	9.72	1.11	8.61	9.73	1.12
131	5.12	5.98	0.86	5.12	6.28	1.16	5.29	5.79	0.50	5.29	6.09	0.80
132	4.67	5.08	0.41	4.67	5.35	0.68	4.79	4.87	0.08	4.79	5.14	0.35
133	4.24	4.30	0.06	4.24	4.54	0.30	4.57	4.45	-0.12	4.42	4.70	0.28
134	2.87	2.71	-0.16	2.87	2.86	-0.01	6.16	4.57	-1.59	6.16	4.88	-1.28
135	9.07	3.41	-5.66	9.07	3.64	-5.43	21.61	5.02	-16.59	21.61	5.02	-16.59
136	9.01	11.80	2.79	9.01	11.80	2.79	9.10	2.92	-6.18	9.10	2.92	-6.18
137	7.52	9.07	1.55	7.52	9.99	2.47	7.12	3.54	-3.58	7.12	3.64	-3.48
138	9.88	9.32	-0.56	9.89	10.77	0.88	9.49	5.94	-3.55	9.49	6.52	-2.97
139	7.82	13.91	6.09	7.82	16.06	8.24	7.74	2.59	-5.15	7.74	15.78	8.04
140	8.17	9.60	1.43	8.17	9.79	1.62	8.12	12.55	4.43	8.12	12.77	4.65
141	8.04	13.10	5.06	8.04	14.19	6.15	8.34	8.61	0.27	8.34	9.14	0.80
142	23.84	8.19	-15.65	23.84	24.53	0.69	24.44	7.26	-17.18	24.44	12.32	-12.12
143	11.23	7.83	-3.40	11.23	7.84	-3.39	11.42	6.01	-5.41	11.42	6.02	-5.40
144	9.63	8.28	-1.35	9.63	8.73	-0.90	9.38	5.13	-4.25	9.38	5.19	-4.19
145	9.78	18.39	8.61	9.78	18.97	9.19	8.90	3.52	-5.38	8.90	2.84	-6.06
146	10.92	12.56	1.64	10.92	14.33	3.41	7.75	8.78	1.03	7.75	9.88	2.13
147	13.22	12.38	-0.84	13.22	13.22	0.00	11.29	10.68	-0.61	11.29	11.29	0.00
		velocity range[b]	-15.65 to 8.61		velocity range[b]	-13.30 to 9.19		velocity range[b]	-16.59 to 6.69		velocity range[b]	-16.59 to 9.41

[a] figures preceded by a (-) indicates a reduction in velocity

[b] variations in velocity due to nature of the existing natural topography, for example, a volume of water flowing in a deep area would have a lower velocity than the same volume of water flowing in a shallow area

L:\East Orange\imp\storm\hydro\hydro calcs\santiago velocities