Appendices

Appendix A

Air Quality Assessment

Air Quality Assessment for the NISL Coyote Creek Bank Repair Project

November 12, 2018

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This report addresses the air quality impacts associated with the proposed Newby Island Landfill (NISL) Coyote Creek Bank Repair Project (Project). The Project's goal is to stabilize the creek channel, arrest bank retreat, and provide limited localized habitat improvements along 138 feet of Coyote Creek at the north end of the NISL property. The areas temporarily impacted by the Project (15,000 square feet or 0.35 acres) includes the access road and staging areas (7,750 square feet or 0.18 acres) and the areas impacted by grading and bank work (7,250 square feet or 0.17 acres). Over the 3-week construction period, the Project will move 240 cubic yards of material and place 170 cubic yards of rock and soil in the channel.

The Project will not include new operational sources of air pollutants (e.g., no additional use of motor vehicles for maintenance activities, no additional stationary equipment, such as pumps or generators, etc.). So, the analysis and discussion below focus on Project construction emission, health risk, and odor impacts following the guidance provided by the Bay Area Air Quality Management District (BAAQMD) in their CEQA Air Quality Guidelines (May 2017).

The construction emission model spreadsheets to support the assessment are also appended below.

Sincerely,

Seaf J. Jall
Geoffred H. Hornek

A. Setting

The US Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) oversee the enforcement of national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS), respectively. The major air pollutants so regulated are: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and particulate matter (PM) (the latter in two size classes - PM less than 10 microns in diameter [PM₁₀] and PM less than 2.5 microns in diameter [PM_{2.5}]).

Many other chemical compounds, generally termed toxic air contaminants (TACs), pose a present or potential hazard to human health through airborne exposure. In California, most of the estimated carcinogenic/chronic/acute health risk can be attributed to relatively few TACs, the most important being particulate matter emitted from dieselfueled engines (DPM, which is also a form of $PM_{2.5}$). The CARB has identified DPM as being responsible for about 70 percent of the cumulative cancer risk from all airborne TAC exposures statewide.

The Project site is located in the Santa Clara County, which is one of the nine counties that make up the San Francisco Bay Area Air Basin, where the BAAQMD has responsibility for regional air quality planning and stationary source regulation. The Bay Area meets all NAAQS/CAAQS for major air pollutants with the exception of ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$). TACs have no ambient air quality standards; their health impacts are evaluated based on the specific circumstances of the sensitive receptors exposed to particular TAC emissions from identified local sources

The primary sources and adverse health/welfare effects of ozone, PM and TACs are described below:

Ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infection, impairs lung defense mechanisms, and with prolonged exposure can lead to emphysema and chronic bronchitis. Ozone is also harmful to vegetation, and can damage many common materials such as nylon, rubber, dyes, and paints. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). Ozone levels in the Bay Area are highest during late spring through early summer when meteorological conditions (i.e., high temperatures, strong sunlight, etc.) are favorable for the photochemical reactions that produce it.

Particulate Matter. Scientific studies have identified links between exposure to PM and numerous health problems including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Children are more

susceptible to the health risks of PM because their immune and respiratory systems are still developing. Very small particles of certain substances (e.g., sulfates and nitrates) can also cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing transportation, industrial, and agricultural sources. Some sources of particulate matter (i.e., mining, demolition and construction activities) are more localized, while others (i.e., motor vehicular traffic) have a wider regional distribution.

Toxic Air Contaminants. A wide variety of sources, stationary (e.g., dry cleaning facilities, gasoline stations, emergency diesel-powered generators, etc.) and mobile (e.g., motor vehicles, construction equipment, etc.), emit TACs. The health effects associated with TACs are quite diverse. TACs can cause long-term health effects (e.g., cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage) and/or short-term acute effects (e.g., eye watering, respiratory irritation, running nose, throat pain, and headaches). CARB identified DPM as a TAC in 1998 and subsequently developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. The Plan's goal is to reduce DPM emissions and associated health risks statewide by 85 percent by 2020 through the use of diesel particulate filters (DPFs) and ultra-low sulfur diesel fuel.

In the Bay Area, CEQA air quality issues are typically addressed using the methodologies and significance thresholds specified in the BAAQMD CEQA Air Quality Guidelines. According to the Guidelines, any project would have a significant potential for causing a local air quality standard violation, exceeding a TAC health risk threshold, or making a cumulatively considerable contribution to a regional air quality problem if its pollutant/TAC emissions would exceed any of the thresholds presented in **Table 1** during construction or operation.

Table 1
Air Quality Significance Thresholds

	Construction	Operational Thresholds					
	Thresholds						
Criteria Air Pollutant		Average Daily	Annual Average				
	Average Daily	Emissions	Emissions				
	Emissions (lbs./day)	(lbs./day)	(tons/year)				
ROG	54	54	10				
NO_x	54	54	10				
PM ₁₀	82 (Exhaust)	82	15				
PM _{2.5}	54 (Exhaust)	54	10				
Fugitive Dust	Dust Control Best	No	one				
r ugitive Dust	Management Practices						
	Construction and Operational Thresholds						
	From Project Sources	From Combin	ned Sources on				
Health Risks and	on Sensitive Receptors	Sensitive Recep	tors within 1,000				
Hazards	within 1,000 feet of	feet of the	Project Site				
	Project Site						
Excess Cancer Risk	>10 per one million	>100 per	one million				
Hazard Index	>1.0	>1	.0.0				
Incremental annual	>0.3 μg/m ³	\n Q	μg/m ³				
PM _{2.5}	νυ.3 μg/111 	> 0.8	μ <u></u> β/ ¹¹¹				
Odors	5 confirmed complaints per year averaged over 3 years						

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (μ m) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5 μ m or less.

B Potential Impacts

Estimation of Air Pollutant/DPM Emissions

Since the Project does not fit any of CalEEMod's standard land use classifications (i.e., residential, commercial, industrial, etc.), Project construction emissions were calculated using the list of equipment provided by the applicant's engineers (Questa Engineering) and Appendix D of the CalEEMod model (Version 2016.3.2), which lists all the emission rates of the statewide construction equipment fleet by type and year. The CARB's EMFAC 2014 motor vehicle emission model was used for Project trucks and worker

commute vehicles. They were processed as shown in the Excel spreadsheet at the end of this report to get the total Project construction emissions.

Impact 1 – Project construction would generate less-than-significant amounts of criteria and would therefore not conflict with the air quality plan.

As depicted in Table 2, construction-related exhaust emissions would be below the BAAQMD construction thresholds, resulting in a less than significant impact. However, BAAQMD recommends the implementation of the Basic Construction Measures to reduce fugitive dust emissions. These measures are included in the City of San Jose's Standard Permit Conditions. Therefore, additional mitigation is not required.:

Table 2
Average Daily Unmitigated Construction-Related Emissions (lbs./day)

Emission Source	ROG	NOx	Exhaust	Exhaust
			PM10	PM 2.5
Off-Road Construction Equipment	0.75	8.65	0.34	0.32
Haul Trucks	0.03	0.56	< 0.01	< 0.01
Delivery Trucks	< 0.01	0.03	< 0.01	< 0.01
Worker Commutes	< 0.01	0.01	< 0.01	< 0.01
Total	0.77	9.24	0.35	0.32
BAAQMD Construction Threshold	54	54	82	54
Significant Impact?	No	No	No	No

Appendix D to the User's Guide of CalEEMod (Version 2016.3.2) lists all the numerical values in the model database used to calculate development project criteria pollutant emissions. Diesel-powered construction equipment emission factors and on-road motor vehicle emission rates from EMFAC 2014 (the CARB's EPA-approved motor vehicle emission model) for haul/delivery trucks and worker commute vehicles, both from the model database, were used along with project-specific equipment type/number and truck/worker commute trips to estimate project construction emissions by Excel spreadsheet.

Impact 2 – Project-generated emission would not expose sensitive receptors to substantial pollutant concentrations.

There are no sensitive receptors (e.g., residences, schools, etc.) within 1000 feet of the active area proposed for Project construction, which the BAAQMD considers the relevant zone of influence for an assessment of air pollutant impacts or health risks. The nearest sensitive land use is a residential complex located approximately 0.6 miles southeast of the Project site, east of I-880 and south of Dixon Landing Road (refer to Figures 1-2). The existing San Francisco Bay Trail (ending on Fremont Boulevard to the north of the Project site) comes to within approximately 0.5 miles of the Project site.

Thus, short-term construction-related PM levels and health risks associated with the proposed Project would be less than significant.

The proposed Project would have no operational air pollutant or health risk impacts.

Impact 3 - The project would not generate odors.

Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. New operations associated with the proposed Project would be limited to very minimal vehicle use by staff for visual inspections. Thus, the proposed Project operation is not expected to create objectionable odors and the odor impact associated with the proposed Project would be less than significant.

Greenhouse Gas Emissions

GHG emissions from the Project would occur only during the short construction phase. The CO2 emissions table presented below shows the amount of CO2 that would be generated during this construction phase.

The BAAQMD has neither adopted nor recommended GHG thresholds for construction emissions in their CEQA Air Quality Guidelines. The City's GHG Strategy does not include measures to reduce emissions from construction equipment. Consequently, construction emissions from the proposed Project are expected to be consistent with the GHG Strategy. Therefore, the proposed Project would have a less-than-significant impact associated with construction-related GHG emissions.

Newby Island Bank Stabilization - Construction Emissions (2019)

Pollutant: NOx																		
										Oı	n- Site		0	ff-Site		Т	otal	
EQUIPMENT	hp	LoadFac*	NOxFac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Excavator	163	0.38	2.53264		1	21	work days	8.00	hours/day	1255	26354					1255	26354	
Loader	200	0.36	3.74452		1	21	work days	8.00	hours/day	2157	45294					2157	45294	
Skip Loader	65	0.37	2.66		1	21	work days	8.00	hours/day	511	10731					511	10731	
Delivery Truck	1	1	63.114031		0.3	21	work days	1	day	3	55	4.8877	7.3	12	250	15	305	
Haul Truck	1	1	63.114031		1.0	21	work days	1	day	8	166	4.8877	50.0	244	5132	252	5298	
Worker Commute					4.5	21	work days	2	trips/day	0	0	0.0526	10.8	3	54	3	54	
-		* Equipmen	t: CalEEMod A	Apper	ndix D		Tot (gran	ıs)		3,933	82,600	1		259	5,435	4,192	88,035	
		Truck: EMF	AC 2014 HHE) Idle			Tot (lbs)			8.7	182.1			0.6	12.0	9.2	194.1	0.10 tons
							Avg. Day	(lbs)				Truck: EMF	AC2014 H	HDT 35 mph			9.2	
Pollutant: ROG												Worker Co	mmute: EN	IFAC2014 LE	OT2 35 mph			
Pollutant: ROG										Oı	ո- Site	Worker Co		IFAC2014 LE	OT2 35 mph	Т	otal	
Pollutant: ROG	hp	LoadFac*	ROGFac*		Quantity	T DURATION	UNIT	D DURATION	UNIT		n- Site TotEmis	Worker Col	o			T DayEmis	otal TotEmis	
	hp 163	-	ROGFac*		Quantity 1		UNIT work days		UNIT hours/day		TotEmis	Emfac	o	ff-Site				
EQUIPMENT		0.38			Quantity 1 1	21	-	8.00		DayEmis	TotEmis 2562	Emfac	o	ff-Site		DayEmis	TotEmis 2562	
EQUIPMENT Excavator	163	0.38 0.36	0.2462		Quantity 1 1 1	21 21	work days	8.00 8.00	hours/day	DayEmis 122	TotEmis 2562 3743	Emfac	C Length	off-Site DayEmis		DayEmis 122	TotEmis 2562 3743	
EQUIPMENT Excavator Loader	163 200	0.38 0.36	0.2462 0.3094		Quantity 1 1 1 0.3	21 21 21	work days work days	8.00 8.00	hours/day hours/day	DayEmis 122 178	TotEmis 2562 3743	Emfac	C Length	DayEmis 0	TotEmis 9	122 178 38 0	2562 3743 806 10	
EQUIPMENT Excavator Loader Skip Loader	163 200	0.38 0.36	0.2462 0.3094 0.20		1 1 1	21 21 21 21	work days work days work days	8.00 8.00	hours/day hours/day hours/day	DayEmis 122 178	TotEmis 2562 3743	Emfac	7.3 50.0	DayEmis 0 11	TotEmis 9	122 178 38 0	2562 3743 806 10 243	
EQUIPMENT Excavator Loader Skip Loader Delivery Truck	163 200	0.38 0.36	0.2462 0.3094 0.20 2.05281209		1 1 1 0.3	21 21 21 21 21	work days work days work days work days	8.00 8.00 8.00 1	hours/day hours/day hours/day day	DayEmis 122 178	TotEmis 2562 3743	Emfac 0.1684	7.3 50.0	DayEmis 0 11	TotEmis 9 236	122 178 38 0	2562 3743 806 10 243	
EQUIPMENT Excavator Loader Skip Loader Delivery Truck Haul Truck	163 200	0.38 0.36 0.37 1	0.2462 0.3094 0.20 2.05281209	Apper	1 1 1 0.3 1.3 4.5	21 21 21 21 21	work days work days work days work days work days	8.00 8.00 8.00 1 1	hours/day hours/day hours/day day day	DayEmis 122 178 38 0 0 0 0 339	TotEmis 2562 3743 806 2 7 0 0 7,119	0.1684 0.1684 0.0165	7.3 50.0	DayEmis 0 11	9 236 17	122 178 38 0 12 1 1	TotEmis 2562 3743 806 10 243 17 7,380	
EQUIPMENT Excavator Loader Skip Loader Delivery Truck Haul Truck	163 200	0.38 0.36 0.37 1 1	0.2462 0.3094 0.20 2.05281209 2.05281209		1 1 1 0.3 1.3 4.5	21 21 21 21 21	work days work days work days work days work days work days	8.00 8.00 8.00 1 1	hours/day hours/day hours/day day day	122 178 38 0 0	7otEmis 2562 3743 806 2 7 0 0	0.1684 0.1684 0.0165	7.3 50.0	DayEmis 0 11 11	9 236 17	122 178 38 0 12 1 1	2562 3743 806 10 243	0.01 tons
EQUIPMENT Excavator Loader Skip Loader Delivery Truck Haul Truck	163 200	0.38 0.36 0.37 1 1	0.2462 0.3094 0.20 2.05281209 2.05281209 t: CalEEMod A		1 1 1 0.3 1.3 4.5	21 21 21 21 21	work days work days work days work days work days work days Tot (gran	8.00 8.00 8.00 1 1 2	hours/day hours/day hours/day day day	DayEmis 122 178 38 0 0 0 0 339	TotEmis 2562 3743 806 2 7 0 0 7,119	0.1684 0.1684 0.0165	7.3 50.0	DayEmis 0 11 12 12 12 12 12 12 12 12 12 12 12 12	9 236 17 261 0.6	122 178 38 0 12 1 1	TotEmis 2562 3743 806 10 243 17 7,380	0.01 tons
EQUIPMENT Excavator Loader Skip Loader Delivery Truck Haul Truck	163 200	0.38 0.36 0.37 1 1	0.2462 0.3094 0.20 2.05281209 2.05281209 t: CalEEMod A		1 1 1 0.3 1.3 4.5	21 21 21 21 21	work days work days work days work days work days work days Tot (grant Tot (lbs)	8.00 8.00 8.00 1 1 2	hours/day hours/day hours/day day day	DayEmis 122 178 38 0 0 0 0 339	TotEmis 2562 3743 806 2 7 0 0 7,119	Emfac 0.1684 0.1684 0.0165	7.3 7.3 50.0 10.8	## O	9 236 17 261 0.6	122 178 38 0 12 1 1	TotEmis 2562 3743 806 10 243 17 7,380 16.3	0.01 tons
EQUIPMENT Excavator Loader Skip Loader Delivery Truck Haul Truck	163 200 65 1	0.38 0.36 0.37 1 1	0.2462 0.3094 0.20 2.05281209 2.05281209 t: CalEEMod A		1 1 1 0.3 1.3 4.5	21 21 21 21 21	work days work days work days work days work days work days Tot (grant Tot (lbs)	8.00 8.00 8.00 1 1 2	hours/day hours/day hours/day day day	DayEmis 122 178 38 0 0 0 0 339	TotEmis 2562 3743 806 2 7 0 0 7,119	Emfac 0.1684 0.1684 0.0165	7.3 7.3 50.0 10.8	## Open	9 236 17 261 0.6	122 178 38 0 12 1 1	TotEmis 2562 3743 806 10 243 17 7,380 16.3	0.01 tons

										O	n- Site		0	ff-Site		7	otal
EQUIPMENT	hp	LoadFac*	PM10Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis
Excavator	163	0.38	0.1221		1	21	work days	8.00	hours/day	61	1271					61	1271
Loader	200	0.36	0.1255		1	21	work days	8.00	hours/day	72	1518					72	1518
Skip Loader	65	0.37	0.12		1	21	work days	8.00	hours/day	23	492					23	492
Delivery Truck	1	1	0.08950842		0.3	21	work days	1	day	0	0	0.0247	7.3	C	1	0	1
Haul Truck	1	1	0.08950842		1.3	21	work days	1	day	0	0	0.0247	50.0	2	35	2	35
Worker Commute					4.5	21	work days	2	trips/day	0	0	0.0067	10.8	0	7	0	7
		* Equipmer	t: CalEEMod	Apper	ndix D		Tot (gram	s)		156	3,281			2	43	158	3,323
		Truck: EMF	AC 2014 HHE) Idle			Tot (lbs)			0.3	7.2			0.0	0.1	0.3	7.3
							Avg. Day	(lbs)				Truck: EMF	AC2014 H	HDT 35 mph	1		0.3
										Worker Commute: EMFAC2014 LDT2 35 mph				DT2 35 mph			

Pollutant: PM25

									0	n- Site		O	ff-Site		Т	Total .	
EQUIPMENT	hp	LoadFac*	PM25Fac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Excavator	163	0.38	0.1124	1	21	work days	8.00	hours/day	56	1170					56	1170	
Loader	200	0.36	0.1155	1	21	work days	8.00	hours/day	67	1397					67	1397	
Skip Loader	65	0.37	0.11	1	21	work days	8.00	hours/day	22	452					22	452	
Delivery Truck	1	1	0.08563633	0.3	21	work days	1	day	0	0	0.0236	7.3	0	1	0	1	
Haul Truck	1	1	0.08563633	1.3	21	work days	1	day	0	0	0.0236	50.0	2	33	2	33	
Worker Commute				4.5	21	work days	2	trips/day	0	0	0.0064	10.8	0	7	0	7	
		* Equipmen	t: CalEEMod A	Appendix D		Tot (gram	s)		144	3,019			2	41	146	3,060	
		Truck: EMF	AC 2014 HHD	Idle		Tot (lbs)			0.3	6.7			0.0	0.1	0.3	6.7	0.00
						Avg. Day	(lbs)				Truck: EMF	AC2014 HI	HDT 35 mph	1		0.3	

Worker Commute: EMFAC2014 LDT2 35 mph

Pollutant: CO2

									0	n- Site		0	ff-Site		Т	otal
EQUIPMENT	hp	LoadFac*	CO2Fac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis
Excavator	163	0.38	482.6838	1	21	work days	8.00	hours/day	239179	5022769					239179	5022769
Loader	200	0.36	480.0997	1	21	work days	8.00	hours/day	276537	5807286					276537	5807286
Skip Loader	65	0.37	482.38	1	21	work days	8.00	hours/day	92811	1949026					92811	1949026
Delivery Truck	1	1	12267.1696	0.3	21	work days	1	day	511	10723	1759.1414	7.3	4276	89802	4787	100525
Haul Truck	1	1	12267.1696	1.3	21	work days	1	day	2044	42924	1759.1414	50.0	117247	2462182	119291	2505107
Worker Commute				4.5	21	work days	2	trips/day	0	0	332.8596	10.8	16177	339717	16177	339717
						_ ,,				10 000 -00						4 4 4 4 4 4 4 4

* Equipment: CallEEMod Appendix D Tot (grams) 611,082 12,832,728 137,700 2,891,701 748,782 15,724,429 15.7 metric tons
Truck: EMFAC 2014 HHD Idle Tot (lbs) 1347.2 28291.0 303.6 6375.0 1650.8 34666.1 17.3 tons
Avg. Day (lbs) Truck: EMFAC2014 HHDT 35 mph 1650.8

Worker Commute: EMFAC2014 LDT2 35 mph

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Education

M.S., Applied Science/Engineering, University of California, Davis/Livermore, 1980 B.A., Physics, Queens College CUNY, 1974

Professional Affiliations

American Physical Society Air and Waste Management Association Mr. Hornek is an environmental scientist with more than 20 years of experience in environmental and occupational air quality and noise analysis. He has prepared many technical reports for a wide variety of industrial, commercial, transportation, and urban development projects and is well-versed in the federal, state, and local regulatory framework that guides development. He has excellent working relationships with public agency contacts and environmental professionals in urban and transportation planning, and in a wide variety of government and industry sectors.

Mr. Hornek's technical capabilities include measuring ambient air pollutant and noise levels, performing computer-based air dispersion and noise attenuation modeling, conducting air toxic health risk assessments, and designing environmentally superior alternatives to mitigate air pollutant and noise problems and their related health impacts. He has completed study towards a master of public health degree in environmental health from the University of Minnesota School of Public Health. His thesis research involved methods for reconstructing occupational air pollutant exposure histories using computer models and statistical techniques.

Much of his most recent work has been on CEQA/NEPA studies in northern California for a variety of lead agencies, including:

- Albany Beach Restoration and Public Access Project (East Bay Regional Parks District)
- Patterson Ranch Public Access and Habitat Project (East Bay Regional Parks District)
- Lower Marsh Creek Stream Corridor Restoration Program (Contra Costa County Flood Control and Water Conservation District)
- Marsh Creek Road Bridge Replacement Project (Contra Costa County Public Works Department)
- Berkeley Tuolumne Camp Permit (City of Berkeley)
- Pinole Creek Fish Passage Improvement Project (Contra Costa Resource Conservation District)
- Floodwall Improvement Project Zone 3A/Line D (Alameda County Flood Control District
- Bryant-Habert Ecological Restoration Project (Resource Conservation District of Santa Cruz County)
- Western Dublin Recycled Water Distribution System Expansion Project (Dublin San Ramon Services District)
- **Dublin Trunk Sewer Rehabilitation Project** (Dublin San Ramon Services District)
- McInnis Park Master Plan Implementation Project (Marin County Parks and Open Space Department)
- Lower Miller Creek Chanel Maintenance and Flood Study Project (Las Galinas Valley Sanitary District Marin County)
- Georgia-Pacific Antioch Gypsum Plant Wharf Replacement Project (California State Lands Commission)
- Mission Creek Restoration Project (Alameda County Flood Control District)

Appendix B

Biological Evaluation



NEWBY ISLAND LANDFILL BANK STABILIZATION BIOLOGICAL EVALUATION CITY OF SAN JOSE, CALIFORNIA

Prepared by

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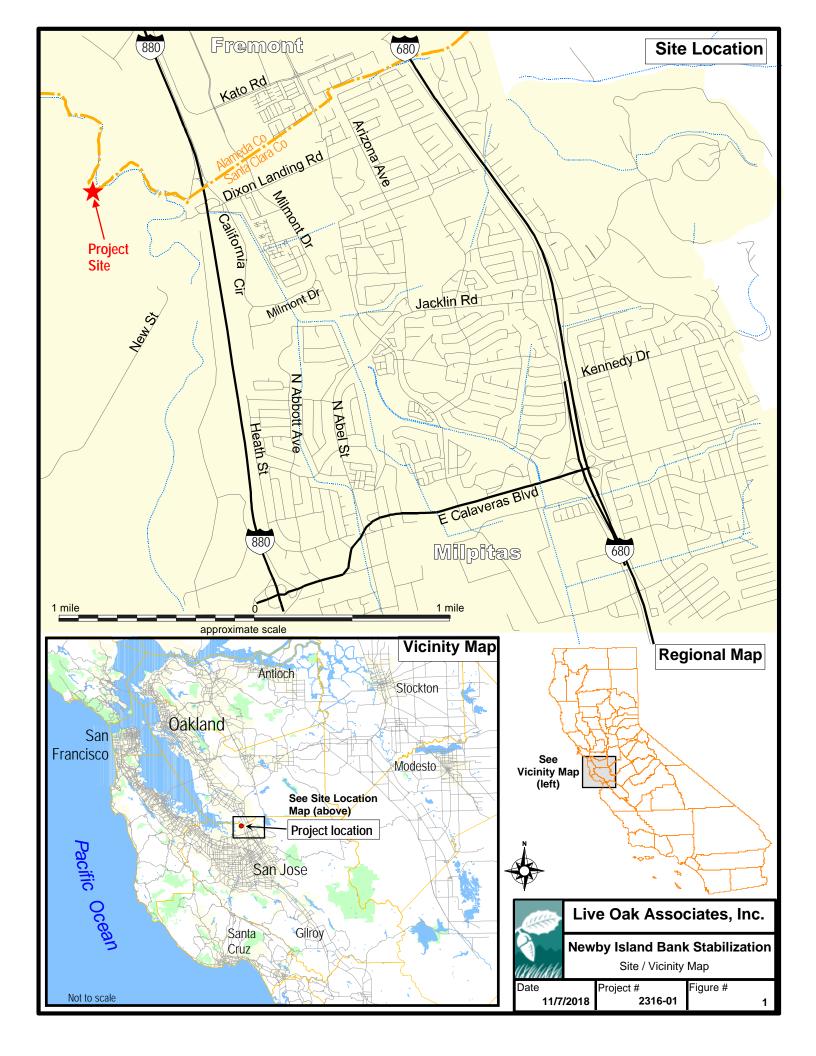
1 INTRODUCTION

Live Oak Associates, Inc. (LOA) has prepared the following technical report that describes the biotic resources of the 0.33-acre Newby Island Landfill Bank Stabilization Project site located on the eastern side of the Newby Island Landfill property, in the City of San Jose, Santa Clara County, California, and evaluates likely impacts to these resources resulting from the repair and restabilization of the creek bank (Figure 1).

Development projects can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, these activities may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of the City of San Jose. This report addresses issues related to: 1) sensitive biotic resources occurring on the site; 2) the federal, state, and local laws regulating such resources, and 3) mitigation measures which may be required to reduce the magnitude of anticipated impacts. As such, the primary objectives of this report are as follows:

- Summarize all site-specific information related to existing biological resources;
- Make reasonable inferences about the biological resources that could occur onsite based on habitat suitability and the proximity of the site to a species' known range;
- Summarize all state and federal natural resource protection laws that may be relevant to possible future site development;
- Identify and discuss natural resource issues specific to the site that could affect future development;
- Identify avoidance and mitigation measures that could significantly reduce the magnitude of likely biological resource issues associated with site development.

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the site, discussed in Section 2.0. Sources of information used in the preparation of this analysis included: 1) the *California Natural Diversity Data Base* (CDFW 2018a), 2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2018), 3) the Biological Assessment completed by H.T. Harvey & Associates (2018), 4) the Department of the Army Nationwide Permit for the project issued by the U.S. Army Corps of Engineers (USACE) (USACE 2018), 5) the Draft Streambed Alteration Agreement for the project issued by the



California Department of Fish and Wildlife (CDFW 2018b), and 6) manuals and references related to plants and animals of Santa Clara and neighboring Alameda Counties.

A field survey of the study area was conducted on October 29, 2018, by LOA ecologists Davinna Ohlson and Emily Moffitt, at which time the principal biotic habitats and land uses of the site were identified, and the constituent plants and animals of each were noted. LOA associate herpetologist Dr. Mark Jennings, a noted fisheries authority, evaluated the site on November 2, 2018.

1.1 PROJECT LOCATION

The Newby Island Landfill Bank Stabilization Project site is located on the eastern side of the Newby Island Landfill property, along the northern border of Santa Clara County. The Coyote Creek channel is the boundary between Santa Clara County and Alameda County. The site is bounded by Coyote Creek, open space, and the old Fremont Airport to the north; busy roadways, including the 880 freeway, and commercial/industrial development to the east; Dixon Landing Road and agricultural fields to the south; and undeveloped lands/landfill areas associated with the Newby Island Landfill property to the west. The site occurs on one parcel (APN 015-40-005) and consists of a small gravel staging area and levee access road, Coyote Creek, and surrounding marsh habitat. The project site is located in the Milpitas 7.5" U.S. Geological Survey (USGS) quadrangle in section 35 of township 5 south, range 1 west.

1.2 PROJECT DESCRIPTION

The project proposes to complete a bank stabilization of 138 feet of creek bank along Coyote Creek. Currently, there is approximately 75 feet of bank erosion that needs to be repaired. Further erosion of the bank could compromise a nearby gas recovery line. The proposed work includes reconstructing the bank slope and extending the existing rock revetment located immediately downstream of the project site through the outside bend in the creek. No rock will be placed above Mean Higher High Water (MHHW). A soil bank slope will extend from MHHW to the top of bank and will be seeded with appropriate species that would be found in this low-lying transitional zone.

The project also proposes to increase habitat value in the site by incorporating a small planting bench for the establishment of alkali bulrush (*Bolboschoenus maritimus*) into the repair. This planting bench will be composed of placed soil on top of the rock revetment. A biodegradable

coir fiber log and underlying coir blankets will be used to stabilize the placed soil while the bulrush gets established. Five woody debris clusters will be added near the toe of the revetment to increase the diversity of the available aquatic habitat. These structures will be incorporated into the rock placement and anchored using larger ballast rock and/or cabled duck bill anchors.

A turbidity curtain will be installed in Coyote Creek around the aquatic portion of the work area to minimize the deposition of fine silt and sediment into the creek channel beyond the work area (Questa Engineering Corporation 2018). The turbidity curtain will be made from a strong, high-filtration, geotextile fabric. The top of the curtain will consist of a closed-cell, polyethylene flotation log. The bottom sleeve will also be made of polyethylene material and will be anchored using a ballast chain or sand bags. Above the water line, exclusion fencing will be installed along the perimeter of the project site, including the staging area, anchored by support posts along a backfilled 6-inch trench. A biological monitor will be present during installation of the turbidity curtain and exclusion fencing (Questa Engineering Corporation 2018).

Measures to protect sensitive wildlife species have been incorporated into the project design. All work below the top of bank is proposed to occur between June 15 and October 15, when the flow in Coyote Creek would be at its lowest. Other measures include conducting a pre-construction training session for all construction personnel on sensitive species that could be encountered on the site, pre-construction surveys, exclusion of fish from the in-stream work area prior to installation of the turbidity curtain, and removal of vegetation using hand-held equipment. The training session, pre-construction surveys, and fish exclusion will be completed by qualified biologists, and a biological monitor will be present during the vegetation removal (H.T. Harvey & Associates 2018).

The total area of impact is approximately 15,000 square feet; this includes the access road, staging area, and areas impacted by grading and bank work. Grading and land disturbance alone will impact 7,250 square feet (0.17 acres) and 138 feet of existing bank. The project will move approximately 240 cubic yards of material. Permanent impacts include the placement of 170 yards of rock and soil below MHHW in the channel; the area of rock riprap will total approximately 1,650 sq ft. Within this area, the bulrush planting bench will total approximately 400 sq ft. The remaining impacts are considered temporary. These include staging areas and the reconstructed

soil bank slope above MHHW. The transitional planting area on the soil bank slope will total approximately 2,267 sq ft.

1.3 REGULATORY PERMITS

At the time this report was prepared, the applicant has received project authorization from the USACE under Nationwide Permit 13 (File number 2018-00269S) (USACE 2018). A draft Streambed Alteration Agreement (Notification Number 1600-2018-0213-R3) has also been issued for this project by the CDFW (CDFW 2018b).

2 EXISTING CONDITIONS

The Newby Island Landfill Bank Stabilization site is located on the eastern side of the Newby Island Landfill property, along the northern border of Santa Clara County, and is bounded by Coyote Creek, open space, and the old Fremont Airport to the north; busy roadways, including the 880 freeway, and commercial/industrial development to the east; Dixon Landing Road and agricultural fields to the south; and undeveloped lands/landfill areas associated with the Newby Island Landfill property to the west. The site's topography is level beyond the top of bank to steeply sloping on the Coyote Creek bank. Elevations range from approximately -2 ft National Geodetic Vertical Datum (NGVD) in Coyote Creek to approximately 8 ft NGVD at the top of the bank and in the gravel staging area. Surrounding land uses are primarily undeveloped and landfill. The site itself consists of an existing gravel staging area and levee access road. Coyote Creek runs through the northern section of the project site, and between the levee access road and the creek is undeveloped vegetation. Habitats on the undeveloped portions of the site consist of aquatic, tidal brackish marsh, and ruderal areas.

Three soil types from three soil series- Xerorthents, trash substratum; Novato clay; and Campbell silt loam- were identified on the project site (Figure 2; Table 1; NRCS 2018). Xerorthents, trash substratum and Campbell silt loam soils are well drained to moderately well drained, and Novato clay soils are very poorly drained. Drainage refers to the frequency and duration of periods when the soil is saturated with water. Novato clay is the only soil type occurring on the site that is considered to be hydric; it is also both alkaline and strongly saline.

The San Jose area has a Meditteranean climate with warm to hot dry summers and cool winters. Annual precipitation in the general vicinity of the site is highly variable from year to year. Average annual rainfall is approximately 15 inches, most of which falls between October and April (WRCC 2018). Stormwater runoff infiltrates the soils of surrounding upland areas immediately adjacent to Coyote Creek, but when field capacity has been reached, gravitational water drains into the creek.

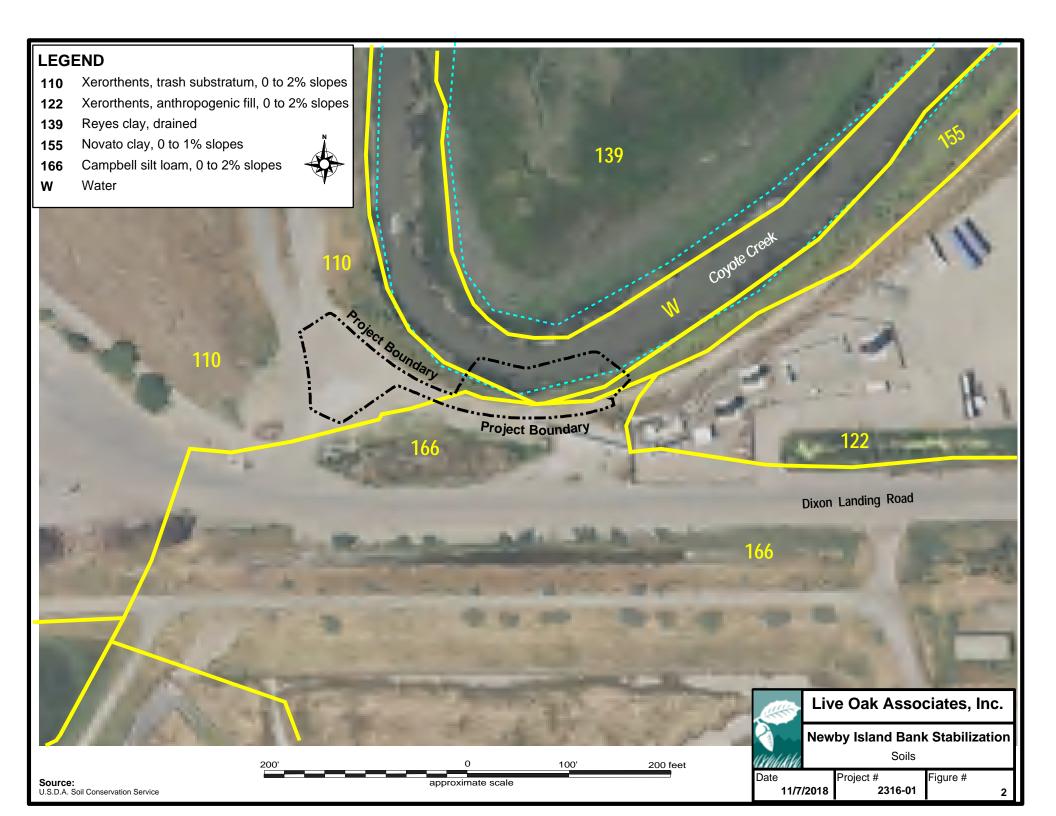


Table 1. Soils occurring on the Newby Island Landfill Bank Stabilization project site (NRCS 2018).									
Soil Series/Soil	Map Symbol	Parent Material	Surface Permeability	Hardpan/ Duripan	Hydric				
CAMPBELL SILT LOAM SERIES	166	Alluvium derived from	Moderately	No	No				
Campbell silt loam, 0 to 2 % slopes,		metamorphic and	slow to slow						
protected		sedimentary rock							
		and/or alluvium derived							
		from metavolcanics							
NOVATO CLAY SERIES	155	Alluvium derived from	Slow	No	Yes				
Novato clay, 0 to 1 % slopes, tidally flooded		metamorphic and							
		sedimentary rock							
		and/or alluvium derived							
		from metavolcanics							
XERORTHENTS SERIES	110	Human transported	n/a	No	No				
Xerorthents, trash substratum, 0 to 2 %		material							
slopes									

2.1 BIOTIC HABITATS

Three biotic habitats were identified on the site (Figure 3). For the purposes of this report, the habitats are classified as tidal brackish marsh, ruderal, and aquatic. The remainder of the site is developed and discussed herein as well. A list of the vascular plant species observed on the project site is provided in Appendix A. Representative site photos are included in Appendix B.

2.1.1 Tidal Brackish Marsh

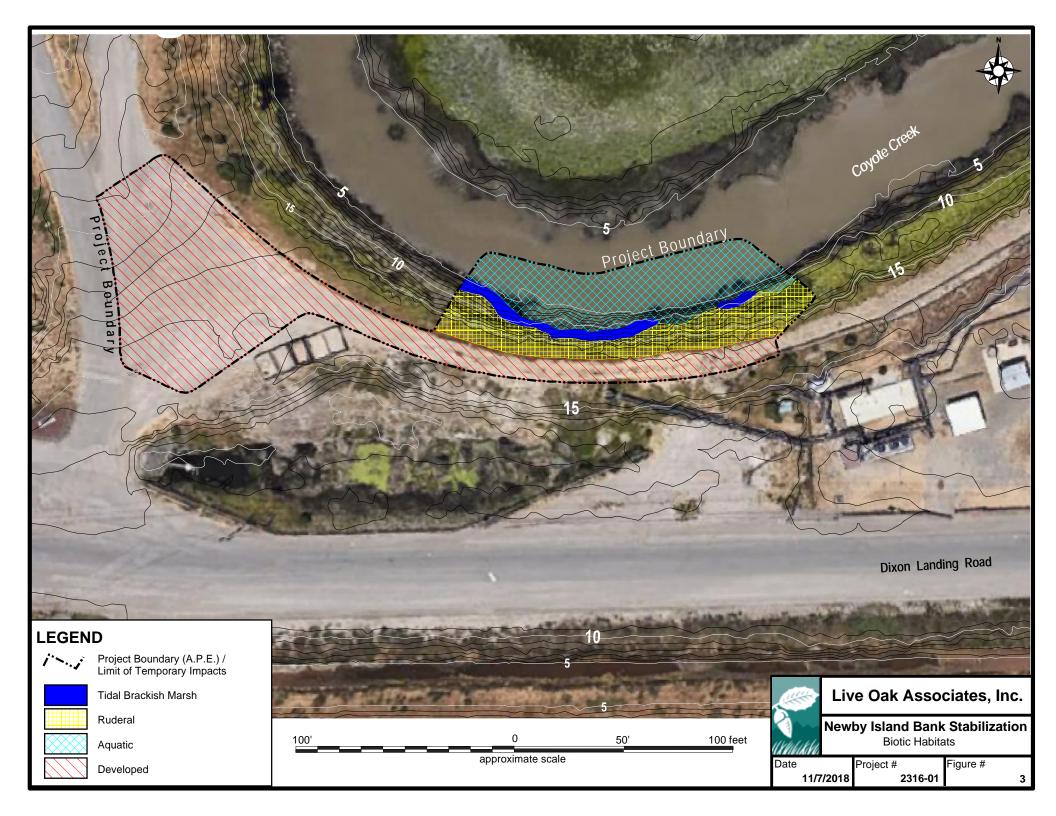
A narrow strip of tidal brackish marsh totaling approximately 80 ft² is present within the project area between the existing access road levee and Coyote Creek. This area is dominated by hardstem bulrush (*Schoenoplectus acutus*), which transitions to ruderal habitat higher on the levee slope of Coyote Creek.

Pacific tree frogs (*Hyla regilla*) could occur in this habitat. Avian species observed include the black-crowned night heron (*Nycticorax nycticorax*), white-crowned sparrow (*Zonotrichia leucophyrys*), golden-crowned sparrow (*Zonotrichia leucophrys*), and red-winged blackbird (*Agelaius phoeniceus*).

2.1.2 Ruderal

Approximately 0.06 acres of ruderal habitat is present within the project area along the Coyote Creek levee, above the tidal brackish marsh habitat. Ruderal habitat is also present all along the levee access road at the top of the creek bank. The lower slope is dominated by lamb's quarters





(Chenopodium album), while the upper slope is dominated by such species as fennel (Foeniculum vulgare) and broad-leaved pepperweed (Lepidum latifolium). Other species occurring on the upper slope and above the top of bank include Italian rye grass (Festuca perennis), Bermuda grass (Cynodon dactylon), bromegrass (Bromus diandrus), annual beard grass (Polypogon monspeliensus), mallow (Malva sp.), ice plant (Carpobrotus edulis), curly dock (Rumex crispus), and alkali heath (Frankenia salina).

Western fence lizards (*Sceloporus occidentalis*) may seek cover in the ruderal vegetation. Avian species observed in this habitat include the white-crowned sparrow and golden-crowned sparrow.

2.1.3 Aquatic

Approximately 0.07 acres of aquatic habitat is present within the project area. This is the Coyote Creek channel which is subject to tidal flows. No emergent vegetation was observed within the section of Coyote Creek within the work area. The creek's outer bend is bordered by narrow mudflat.

Avian species observed in this habitat include the mallard (*Anas platyrhynchos*), common merganser (*Mergus merganser*), and American coot (*Fulica americana*). A white-tailed kite (*Elanus leucurus*) was observed in the marshland immediately north of the Coyote Creek channel.

2.1.4 Developed

Approximately 0.20 acres of developed area is present within the project site. The developed area consists of an existing staging area and gravel levee access road. This area is sparsely vegetated with species similar to that of the adjacent ruderal habitat.

Avian species observed foraging or flying over this habitat included rock pigeon (*Columba livia*), California gull (*Larus californicus*), northern harrier (*Circus hudsonius*), black phoebe (*Sayornis nigricans*), common raven (*Corvus corax*), and Brewer's blackbird (*Euphagus cyanocephalus*). Several Botta's pocket gopher holes and California ground squirrel burrows were present along the edges of the gravel access road. Red fox (*Vulpes vulpes*) and raccoon (*Procyon lotor*) tracks and scat were present on the access road. A feral cat (*Felis catus*) was also observed along the road.

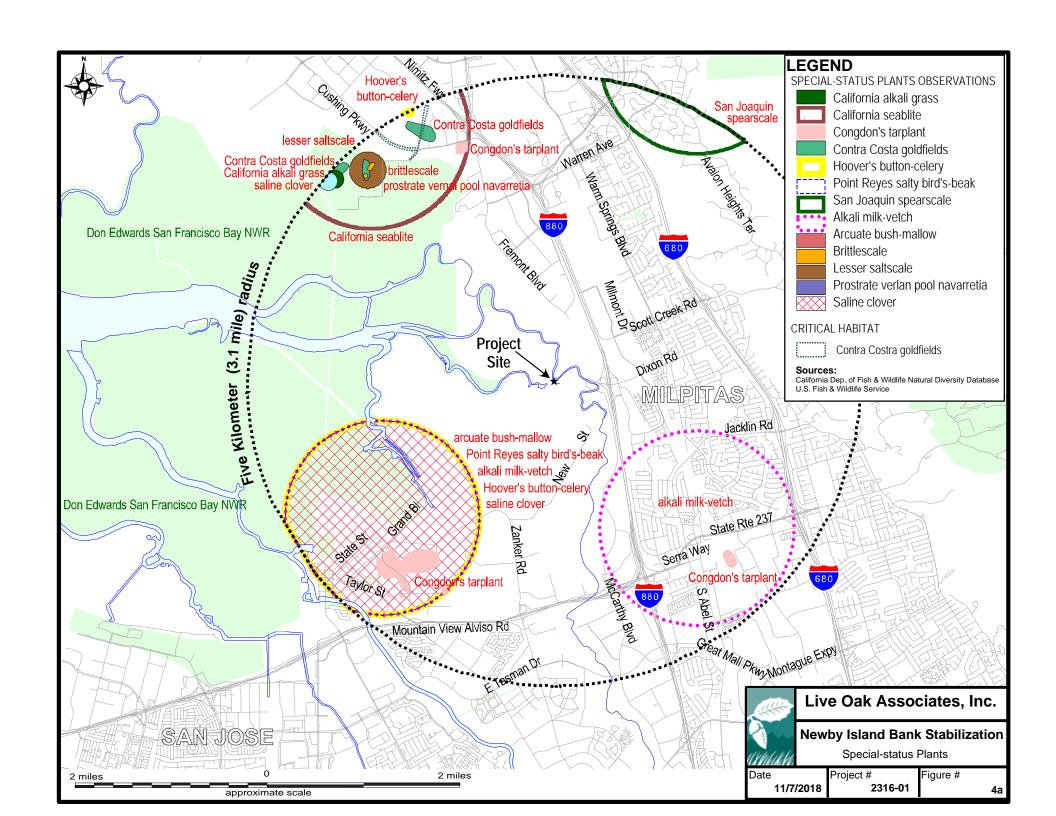
There are no trees or structures within the project site. Thus, the site is not expected to provide suitable roosting habitat for bats.

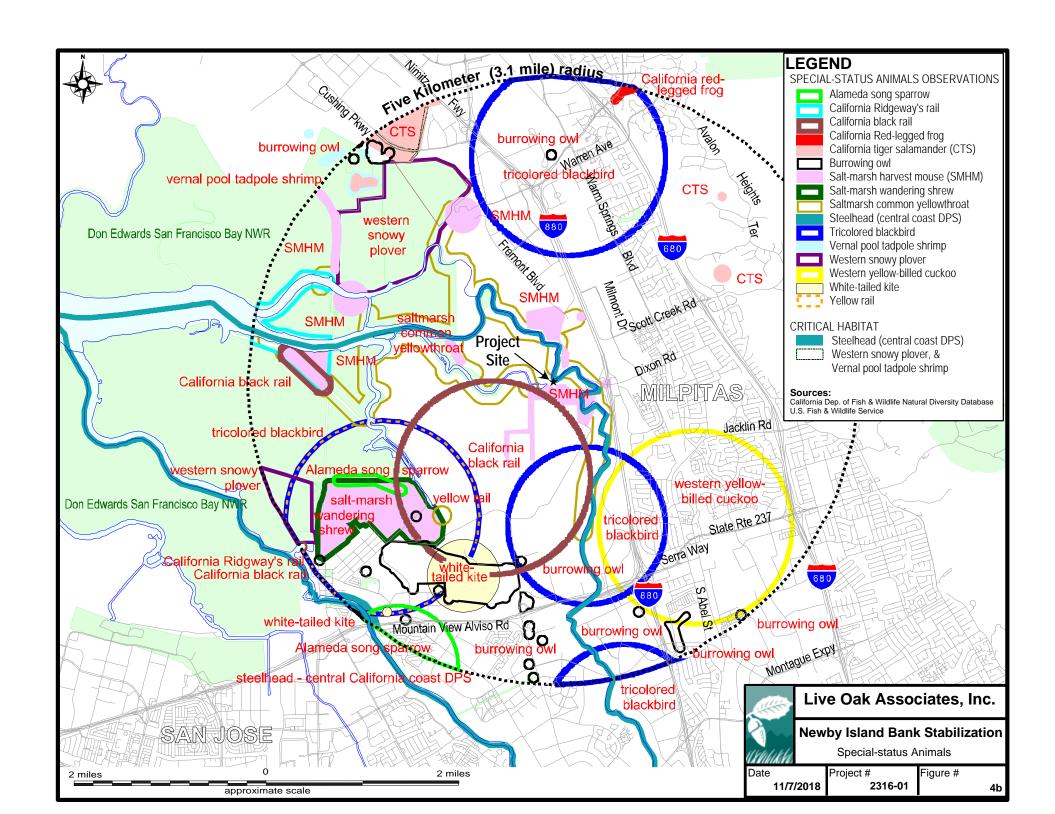
2.2 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. Numerous native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2018). Collectively, these plants and animals are referred to as "special status species."

A number of special status plants and animals occur in the vicinity of the study area. These species, and their potential to occur in the study area, are listed in Table 2. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et al. 1988a, 1988b, and 1988c), *California Natural Diversity Data Base* (CDFW 2018a), *Endangered and Threatened Wildlife and Plants* (USFWS 2018), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2018c), and the California Native Plant Society's *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2018). This information was used to evaluate the potential for special status plant and animal species to occur on the site. Figures 4a and 4b depict the location of special status species reported in the California Natural Diversity Data Base (CNDDB). It is important to note that the CNDDB is a volunteer database; therefore, it may not contain all known or gray literature records.

A search of published accounts for all of the relevant special status plant and animal species was conducted for the Milpitas USGS 7.5" quadrangle in which the project site occurs and for the





eight surrounding quadrangles (Newark, Niles, La Costa Valley, Calaveras Reservoir, San Jose East, San Jose West, Cupertino, and Mountain View) using the CNDDB.

Serpentine soils are absent from the site; as such, those species that are uniquely adapted to serpentine conditions are considered absent from the site. These species include the Santa Clara thorn-mint (*Acanthomintha lanceolata*), Mt. Hamilton fountain thistle (*Cirsium fontinale* var. *campylon*), clustered lady's-slipper (*Cypripedium fasciculatum*), Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*), Metcalf Canyon jewel-flower (*Streptanthus albidus* ssp. *albidus*), fragrant fritillary (*Fritillaria liliacea*), Loma Prieta hoita (*Hoita strobilina*), serpentine leptosiphon (*Leptosiphon ambiguus*), woolly-headed lessingia (*Lessingia hololeuca*), smooth lessingia (*Lessingia micradenia* var. *glabrata*), woodland woollythreads (*Monolopia gracilens*), Patterson's navarretia (*Navarretia paradoxiclara*), chaparral ragwort (*Senecio aphanactis*), and most beautiful jewel-flower (*Streptanthus albidus* ssp. *peramoenus*)

Other plant species occur in habitats not present in the study area (e.g., chaparral, cismontane woodland, coastal scrub, etc.) and, therefore, are also considered absent from the site. These species include the robust spineflower (Chorizanthe robusta var. robusta), big-scale balsamroot (Balsamorhiza macrolepis), Brewer's calandrinia (Calandrinia breweri), chaparral harebell (Campanula exigua), Santa Clara red ribbons (Clarkia concinna ssp. automixa), Lewis' clarkia (Clarkia Francisco lewisii), San collinsia (Collinsia multicolor), Hospital Canyon larkspur (Delphinium californicum ssp. interius), western leatherwood (Dirca occidentalis), Jepson's woolly sunflower (Eriophyllum jepsonii), Hoover's button-celery (Eryngium aristulatum var. hooveri), stinkbells (Fritillaria agrestis), Diablo helianthella (Helianthella castanea), coast iris (Iris longipetala), bristly leptosiphon (Leptosiphon acicularis), arcuate bush-mallow (Malacothamnus arcuatus), Hall's bush-mallow (Malacothamnus hallii), Mt. Diablo cottonweed (Micropus amphibolus), San Antonio Hills monardella (Monardella antonina ssp. antonina), maple-leaved checkerbloom (Sidalcea malachroides), and caper-fruited tropidocarpum (Tropidocarpum capparideum).

Wildlife species that would not be expected to occur on the site because the habitat(s) necessary to support them (e.g., redwoods, coastal scrub, vernal pools, etc.) are absent include the Bay checkerspot butterfly (*Euphydryas editha bayensis*), Santa Cruz black salamander (*Aneides*

flavipunctatus niger), Northern California legless lizard (*Anniella pulchra*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Animal species that may more reasonably occur onsite are included in Table 2 below.

Table 2. Special status species that could occur in the project vicinity.									
PLANTS (adapted from CDFW 2018a, c and CNPS 2018) Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts									
Common and scientific									
names	Status	General habitat description	*Occurrence in the study area						
Contra Costa goldfields Lasthenia conjugens	FE, CRPR 1B	Habitat: Cismontane woodlands, alkaline playas, valley and foothill grasslands, and vernal pools. Occurs in mesic soils. Elevation: 0-470 meters. Blooms: March–June. Life form: Annual herb.	Unlikely. Although some alkaline soils occur on the site, plant communities that this species is associated with are absent from the site. However, the nearest documented occurrences of this species are more than two miles north of the site.						
California seablite Suaeda californica	FE, CRPR 1B	Habitat: Coastal salt marshes and swamps. Elevation: 0-15 meters. Blooms: July-October. Life form: Perennial evergreen shrub.	Absent. This species was not observed on the site during the October 2018 survey.						

Table 2. Special status species tha	t could occur in	the project vicinity.	
PLANTS (adapted from CDFW 2018	Ba, c and CNPS 2	2018)	
Other special status plants listed b			
Common and scientific names	Status	General habitat description	*Occurrence in the study area
Alkali milk-vetch	CRPR 1B	Habitat: Playas, valley and	Unlikely. Suitable habitat for this
Astragalus tener var. tener		foothill grasslands on adobe	species is absent from the site. The
		clay, and vernal pools.	nearest documented occurrences of
		Elevation: 1-60 meters.	this species are more than four miles
		Blooms: March–June.	east and south of the site.
		<u>Life form</u> : Annual herb.	
Brittlescale	CRPR 1B	Habitat: Chenopod scrub,	Unlikely. Although some alkaline soils
Atriplex depressa		meadows and seeps, playas,	occur on the site, plant communities
		valley and foothill grassland,	that this species is associated with are
		and vernal pools. Occurs in	absent from the site. The nearest
		alkaline or clay soils.	documented occurrence of this species
		Elevation: 1-320 meters.	is more than two miles northwest of
		Blooms: April–October.	the site.
		<u>Life form</u> : Annual herb.	
Lesser saltscale	CRPR 1B	<u>Habitat</u> : Chenopod scrub,	Unlikely. Although some alkaline soils
Atriplex minuscula		playas, and valley and	occur on the site, plant communities
		foothill grassland. Occurs in	that this species is commonly
		alkaline, sandy soils.	associated with are absent from the
		Elevation: 15-200 meters.	site. The nearest documented
		Blooms: May–October.	occurrence of this species is more than
		<u>Life form</u> : Annual herb.	two miles northwest of the site.

Table 2. Special status species that could occur in the project vicinity.								
PLANTS (adapted from CDFW 2018a, Other special status plants listed by								
Common and scientific names	Status	General habitat description	*Occurrence in the study area					
Congdon's tarplant Centromadia parryi ssp.congdonii	CRPR 1B	Habitat: Valley and foothill grassland on alkaline soils. Elevation: 0-230 meters. Blooms: May-October. Life form: Annual herb.	Absent. Although some alkaline soils occur on the site, grassland habitat is absent from the site. The October 2018 survey occurred during the latter part of the blooming season for this species, and flowering plants and/or senescent remains would have been observable and identifiable if it was present, but they were not observed. The nearest documented occurrences of this species are more than two miles from the site.					
Point Reyes salty bird's-beak Chloropyron maritimum ssp. palustre	CRPR 1B	Habitat: Coastal salt marshes and swamps. Elevation: 0-10 meters. Blooms: June–October. Life form: Annual herb (hemiparasitic).	Unlikely. Salt marsh habitat and plant communities that this species is commonly associated with are absent from the site. The nearest documented occurrence of this species is more than a mile from the site and was last observed in 1905.					
San Joaquin spearscale Extriplex joaquiniana	CRPR 1B	Habitat: Chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands on alkaline soils. Elevation: 1-835 meters. Blooms: April–October. Life form: Annual herb.	Unlikely. Although some alkaline soils occur on the site, plant communities that this species is commonly associated with are absent from the site. The nearest documented occurrences of this species are more than two miles north of the site.					
Prostrate vernal pool navarretia Navarretia prostrata	CRPR 1B	Habitat: Mesic soils in coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, and vernal pools. Elevation: 3-1210 meters. Blooms: April–July. Life form: Annual herb.	Unlikely. Although some alkaline soils occur on the site, this species would not occur in marsh habitat, and upland ruderal areas are not mesic in nature. The nearest documented occurrences of this species are more than two miles north of the site.					
Hairless popcornflower Plagiobothrys glaber	CRPR 1A	Habitat: Coastal salt marshes and alkaline meadows. Elevation: 15-180 meters. Blooms: March–May. Life form: Annual herb.	Unlikely. Although some alkaline soils occur on the site, plant communities that this species is commonly associated with are absent from the site. The nearest documented occurrences of this species are more than three miles from the site, and the most recent record is from 1955.					
California alkali grass Puccinellia simplex	CRPR 1B	Habitat: Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Occurs in alkaline, vernally mesic soils, usually in sinks, flats, and around lake margins. Elevation: 2-930 meters. Blooms: March–May. Life form: Annual herb.	Unlikely. Although some alkaline soils occur on the site, plant communities that this species is commonly associated with are absent from the site. The nearest documented occurrences of this species are more than two miles north of the site.					



Table 2. Special status species that could occur in the project vicinity.								
PLANTS (adapted from CDFW 2018								
Other special status plants listed b Common and scientific names	Status	General habitat description	*Occurrence in the study area					
Long-styled sand-spurrey Spergularia macrotheca var. Iongistyla	CRPR 1B	Habitat: Meadows and seeps, and marshes and swamps. Occurs in alkaline soils. Elevation: 0-255 meters. Blooms: February–May. Life form: Perennial herb.	Unlikely. While some limited habitat is present on the site, the nearest documented occurrences of this species are more than three miles north of the site, the most recent being from 1934.					
Slender-leaved pondweed Stuckenia filiformis ssp. alpina	CRPR 2B	Habitat: Shallow freshwater marshes and swamps. Typically shallow, clear water of lakes and drainage channels. Elevation: 5-2150 meters. Blooms: May–July. Life form: Perennial rhizomatous herb (aquatic).	Absent. Freshwater marsh habitat is absent from the site. The nearest documented occurrence of this species is more then three miles north of the site.					
Saline clover Trifolium hydrophilum	CRPR 1B	Habitat: Marshes and swamps, valley and foothill grassland, and vernal pools. Occurs in mesic, alkaline sites. Elevation: 0-300 meters. Blooms: April–June. Life form: Annual herb.	Unlikely. Suitable habitat on the site is marginal, at best, and extremely limited. The nearest documented occurrence of this species is less than two miles southwest of the site and from 1892.					

Table 2. Special status species that could occur in the project vicinity. ANIMALS (adapted from CDFW 2018a, c and USFWS 2018) Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts Common and scientific names Status General habitat description *Occurrence in the study area			
Vernal pool tadpole shrimp Lepidurus packardi	FE	Deep vernal pools containing clear to highly turbid water in unplowed grasslands of the Central Valley.	Absent. Vernal pools are absent from the site.
Green sturgeon – southern DPS Acipenser medirostris	FT, CSC	Spend most of their lives in coastal marine waters. Occur in large concentrations in coastal bays and estuaries in the summer and fall. Migrate into freshwater for spawning in spring. The southern DPS is known to spawn in the Sacramento River. Spawning occurs in cool sections of the upper Sacramento River with deep, turbulent flows and clean, hard substrate.	Unlikely. Although the project site falls within the designated critical habitat for the green sturgeon, this species has not been documented in Santa Clara County or the South Bay. The project site does not provide suitable spawning habitat for this species.



Table 2. Special status species that c				
ANIMALS (adapted from CDFW 2018a, c and USFWS 2018) Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts				
Common and scientific names	Status	General habitat description	*Occurrence in the study area	
Steelhead – central California coast DPS Oncorhynchus mykiss irideus pop.	FT, CSC	Spawn in freshwater rivers or streams in the spring and spend the remainder of their life in the ocean. Occur in low-elevation streams that lack significant barriers for travel to and from the ocean. Spawning habitat consists of streams or tributaries with cool, well-oxygenated water and gravel substrate. Fry tend to utilize shallow, protected areas associated with stream margins. Juveniles inhabit riffles, but older juveniles will inhabit deeper	Possible. Steelhead are known to occur within Coyote Creek far upstream from the project site. The project site does not constitute spawning habitat for this species. It is expected that steelhead migrate through the project area between spawning habitat far upstream and the San Francisco Bay and Pacific Ocean. The project site occurs within designated critical habitat for the steelhead- central California coast DPS.	
Longfin smelt Spirinchus thaleichthys	FC, CT, CSC	runs or pools. Anadromous. In California, occurs in Sacramento-San Joaquin estuary and one record from Monterey Bay. Adults inhabit bays, estuaries, and nearshore coastal areas. Spawning occurs in sandy to gravelly substrates of freshwater reaches of coastal rivers or tributaries. Tend to occupy the middle or bottom part of the water column.	Unlikely to Possible. This species is not expected to occur in the project area during the period when inchannel project activities will occur (i.e., June 15 through October 15), although this species has been found in lower Coyote Creek, less than 2 miles downstream from the project area.	
California tiger salamander Ambystoma californiense	FT, CT, CSC	Breeds in vernal pools and stock ponds of central California. Adults aestivate in grassland habitats adjacent to breeding sites.	Absent. Suitable habitat for this species is absent from the site. The nearest recorded observation is over two miles to the northeast of the study area (CNDDB 2018).	
California red-legged frog Rana draytonii	FT, CSC	Dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes with still or slow-moving water. Perennial streams or ponds are preferred, and a salinity of no more than 4.5°/o.	Unlikely. The nearest recorded observation is over 2.9 miles to the northeast of the study area (CNDDB 2018).	



Table 2. Special status species that could occur in the project vicinity.					
ANIMALS (adapted from CDFW 2018a, c and USFWS 2018)					
	Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts				
Common and scientific names	Status	General habitat description	*Occurrence in the study area		
Western snowy plover	FT, CSC	Uses man-made agricultural	Unlikely. Suitable breeding and		
Charadrius montamus		wastewater ponds and	foraging habitat for this species is		
		reservoir margins. Breeds	marginal to absent from the site. This		
		on barren to sparsely	species may use the gravel access road		
		vegetated ground at alkaline	for nesting, but foraging habitat is		
		or saline lakes, reservoirs,	absent as alkaline/saline substrate is		
		ponds, and riverine sand	absent. The nearest observations for		
		bar.	this species are approximately 2 miles to the northwest and 2 miles to the		
			southwest of the site (CNDDB 2018).		
Swainson's hawk (nesting)	СТ	Breeds in stands with few	Unlikely. Marginal foraging habitat is		
Buteo swainsoni		trees in juniper-sage flats,	available surrounding the project area.		
Butto swamsom		riparian areas, and in oak	Breeding habitat for this species is not		
		savannah. Requires adjacent	present on the site. The nearest		
		suitable foraging areas such	recorded observation of Swainson's		
		as grasslands or alfalfa fields	hawk is approximately 7.4 miles to the		
		supporting rodent	south of the site (CNDDB 2018).		
		populations.			
Western yellow-billed cuckoo	FC, CE	Breed in large blocks of	Absent. Dense riparian habitat		
(nesting)		riparian habitats, particularly	required by the western yellow-billed		
Coccyzus americanus occidentalis		cottonwoods and willows.	cuckoo is absent from the study area.		
Tricolored blackbird	CSC, CCT	Breeds near fresh water,	Absent. Breeding habitat is absent		
Agelaius tricolor		primarily emergent	from the site, although this species		
		wetlands, with tall thickets.	may rarely forage on or fly over the		
		Forages in nearby grassland	site during migration.		
0.115		and cropland habitats.			
California black rail	CT, CP	Occurs in coastal and	Unlikely to Possible. Nesting habitat		
Laterallus jamaicensis coturniculus		freshwater marshes,	for this species within the project site		
		estuaries, and tidal slough areas.	is considered poor and is limited in area, but foraging habitat is marginal,		
		areas.	at best. The nearest recorded		
			observation of this species is		
			approximately 1 mile southwest of the		
			project site (CNDDB 2018).		
California Ridgway's rail	FE, CE	Occurs in tidal salt and	Unlikely to Possible. Nesting habitat		
Rallus obsoletus obsoletus		brackish marshes of the San	for this species within the project site		
		Francisco Bay and	is considered poor and limited in area,		
		historically in tidal estuaries	and foraging habitat is marginal, at		
		from Marin to San Luis	best. The nearest recorded		
		Obispo Counties. Often	observation of this species is		
		associated with marshes	approximately 2.3 miles east of the		
		dominated by pickleweed	project site (CNDDB 2018).		
Paul avallan	CT.	and cordgrass.	Hallbak, Naskina a 16 a 1 d 20 a		
Bank swallow	СТ	Occurs in open areas near	Unlikely. Nesting and foraging habitat		
Riparia riparia		flowing water, nests in steep	on the project site is marginal for this		
		banks along inland water or coast. State-wide.	species. The nearest recorded		
		coast. state-wide.	observation of this species is approximately 10 miles northwest of		
			the project site (CNDDB 2018).		



Table 2. Special status species that could occur in the project vicinity. ANIMALS (adapted from CDFW 2018a, c and USFWS 2018) Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Acts			
Common and scientific names	Status	General habitat description	*Occurrence in the study area
California least tern Sternula antillarum browni	FE, CE, CP	Occurs in central to southern California April to November. Found in and near coastal habitat including coasts, beaches, bays, estuaries, lagoons, lakes, and rivers.	Unlikely. Nesting and foraging habitat on the project site is marginal for this species. The nearest recorded observation of this species is approximately 6 miles west of the project site (CNDDB 2018).
Salt-marsh harvest mouse Reithrodontomys raviventris	FE, CE	Occurs in the salt and brackish marshes of Corte Madera, Richmond, and South San Francisco Bay. Salt marsh associations are typically dominated by pickleweed, and brackish marsh associations in the South Bay are typically dominated by alkali bulrush.	Unlikely. Plant associations typically favored by this species are absent from the site. The species is known to occur directly north of the Coyote Creek channel on the project site, and approximately 1.0 mile downstream of the site on the south side of the Coyote Creek channel (CNDDB 2018).

California Species of Special Conce Common and scientific names	18a, c and USFWS rn and Protected Status		*Occurrence in the study area
California giant salamander Dicamptodon ensatus	CSC	Occurs in or adjacent to cold clear permanent to semi-permanent streams and seeps.	Absent. Suitable habitat for this species is absent from the site.
Foothill yellow-legged frog Rana boylii	CSC CCT	Occurs in swiftly flowing streams and rivers with rocky substrate with open, sunny banks in forest, chaparral, and woodland habitats, and can sometimes be found in isolated pools.	Unlikely. Suitable habitat for this species is absent from the site.
Western pond turtle Emys marmorata	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes. Open slow-moving water of rivers and creeks of central California with rocks and logs for basking and dense stands of submergent or emergent vegetation	Possible. Western pond turtles have been known from Coyote Creek, and there is a potential they would use the tidally influenced area for feeding. The neareast recorded occurrence of this species is approximately 5 miles southwest of the project site (CNDDB 2018).
Tricolored blackbird Agelaius tricolor	CSC Candidate CE	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	Unlikely. Foraging habitat is poor for this species, but breeding habitat is marginal within the bulrush thickets within the Coyote Creek channel. The nearest recorded occurrence of this species is approximately 1.5 miles south of the project site upstream within Coyote Creek (CNDDB 2018).

Table 2. Special status species that could occur in the project vicinity.				
ANIMALS (adapted from CDFW 2018a, c and USFWS 2018)				
California Species of Special Concern and Protected Species				
Common and scientific names	Status	General habitat description	*Occurrence in the study area	
Golden eagle Aquila chrysaetos	СР	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	Possible. Suitable foraging habitat exists on site. However, no golden eagles were observed during the site visit in October 2018.	
Burrowing owl Athene cunicularia	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	Possible. Although limited in number, ground squirrel burrows on the site provide potential nesting habitat for this species. Burrowing owls have been recorded less than 2 miles to the southwest of the site (CNDDB 2018).	
Northern harrier Circus cyaneus	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	Present. A northern harrier was observed foraging over the marshlands within the project site in October 2018.	
Yellow rail Coturnicops noveboracensis	CSC	Frequents grassy meadows and sedge marshes with dense cover; breeds in marshes.	Possible. Nesting habitat for this species is marginal, but foraging habitat is available within the project area. The nearest recorded observation of this species is approximately 2.3 miles southwest of the project site (CNDDB 2018).	
White-tailed kite Elanus leucurus	СР	Open grasslands and agricultural areas throughout central California.	Present. A white-tailed kite was observed foraging over the marshlands within the project site in October 2018.	
Peregrine falcon Falco peregrinus	СР	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	Possible. Suitable foraging habitat exists on site. However, no peregrine falcolns were observed during the site visit in October 2018.	
Saltmarsh common yellowthroat Geothlypis trichas sinuosa	CSC	Breeds in herbaceous wetlands and salt marshes of the San Francisco Bay area, can also be found in non-breeding along the California Coast. Nests in thick herbaceous vegetation up to one meter above the ground or over water.	Possible. Suitable breeding and foraging habitat is available, albeit limited, within the project area.	
Alameda song sparrow Melospiza melodia pusillula	CSC	Found in tidal salt marsh habitat with exposed ground for foraging with no more than 2-5 cm between bases of plants. Current range is generally only along the San Francisco Bay.	Possible. Suitable breeding and foraging habitat is available, albeit limited, within the project area. The nearest recorded observation of this species is approximately 2 miles southwest of the project site (CNDDB 2018).	



Table 2. Special status species that could occur in the project vicinity.				
ANIMALS (adapted from CDFW 2018a, c and USFWS 2018) California Species of Special Concern and Protected Species				
Common and scientific names	Status	General habitat description	*Occurrence in the study area	
Black skimmer	CSC	Nests on gravel bars, low	Unlikely. Habitat on site is marginal	
Rynchops niger		islets, and sandy beaches, in	for this species. The nearest recorded	
		unvegetated sites. Nests in	observation of this species is over 8	
		alkali playa and sand shore	miles west of the project site (CNDDB	
		habitats.	2018).	
Pallid bat	CSC	Grasslands, chaparral,	Unlikely. The site provides marginal	
Antrozous pallidus		woodlands, and forests of	foraging habitat for this species.	
		California; most common in	Roosting habitat is absent from the	
		dry rocky open areas	site.	
		providing roosting		
		opportunities.		
Townsend's big-eared bat	CSC	Primarily a cave-dwelling bat	Unlikely. The site provides marginal	
Corynorhinus townsendii		that may also roost in	foraging habitat for this species.	
		buildings. Occurs in a variety	Roosting habitat is absent from the	
		of habitats.	site.	
Salt-marsh wandering shrew	CSC	Found in salt marshes along	Unlikely. Plant associations typically	
Sorex vagrans halicoetes		the San Francisco Bay,	favored by this species are absent	
		particularly in areas	from the site. The nearest recorded	
		dominated by pickleweed.	observation of this species is	
			approximately 2 miles southwest of	
			the project site (CNDDB 2018).	

^{*}Explanation of Occurrence Designations and Status Codes

Present: Species observed on the sites at time of field surveys or during recent past.

Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the sites, but it could occur there from time to time.

Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient. Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE Federally Endangered CE California Endangered
FT Federally Threatened CT California Threatened
FPE Federally Endangered (Proposed) CR California Rare
FC Federal Candidate CP California Protected

CTC California Threatened (Candidate) CSC California Species of Special Concern

CRPR California Rare Plant Rank
1A Plants Presumed Extinct in California
1B Plants Rare, Threatened, or Endangered in

1B Plants Rare, Threatened, or Endangered in information – a review list California and elsewhere

2 Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3 Plants about which we need more

4 Plants of limited distribution – a watch list



2.3 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. With increasing encroachment of humans on wildlife habitats, it has become important to establish and maintain linkages, or movement corridors, for animals to be able to access locations containing different biotic resources that are essential to maintaining their life cycles.

The importance of an area as a movement corridor depends on the species in question and its consistent use patterns. Animal movements generally can be divided into three major behavioral categories:

- Movements within a home range or territory;
- Movements during migration; and
- Movements during dispersal.

While no detailed study of animal movements has been conducted for the site, knowledge of the site, its habitats, and the ecology of the species potentially occurring onsite permits sufficient predictions about the types of movements occurring in the region and whether or not proposed development would constitute a significant impact to animal movements.

A number of reptiles, birds, and mammals may use the ruderal grassland habitats of the site as part of their normal home range and dispersal movements between the site and more open lands to the west. The Coyote Creek channel on the northern boundary of the project site likely facilitates the movement of fish, amphibians, birds, and mammals within and through the site to adjacent marsh habitats north and west of the site. However, this channel would not be expected to facilitate regional movements of wildlife in a disproportionate way, as lands immediately east of the sites consists of industrial and commercial development, and highway 880 runs north-south just 0.5 miles east of the site. Additional commercial development is also present north of the site. All of these serve as barriers to wildlife movement to the north and east. Open lands are more prevalent to the south and west, and animals moving through the site would be expected to disperse back in this general direction.

2.4 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the California Regional Water Quality Control Board (RWQCB). See section 3.2.6 of this report for additional information.

Coyote Creek is a known water of the U.S. that is tributary to the San Francisco Bay, a traditional navigable water of the United States. The limit of USACE jurisdiction, as well as that of the RWQCB, over the creek is the ordinary high water mark. The creek is also subject to the jurisdiction of the CDFW up to the top of bank or the edge of associated riparian vegetation, whichever is greater.

No other jurisdictional waters or wetlands are present on the site.

3 IMPACTS AND MITIGATION MEASURES

3.1 3.1 SIGNIFICANCE CRITERIA

Approval of general plans, area plans, and specific projects is subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are carried out. CEQA is concerned with the significance of a proposed project's impacts. For example, a proposed development project may require the removal of some or all of a site's existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on the site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed.

Whenever possible, public agencies are required to avoid or minimize environmental impacts by implementing practical alternatives or mitigation measures. According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest."

Specific project impacts to biological resources may be considered "significant" if they would:

- 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;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- 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;
- 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 native wildlife nursery sites;



- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) states that a project may trigger the requirement to make a "mandatory findings of significance" if the project has the potential to

Substatiantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal endangered species legislation has provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in



accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Migratory birds and their nests are also protected in California under the provisions of sections 3503 and 3513 of the California Fish and Game Code. Section 3503 of the Fish and Game Code makes it "unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3513 of the California Fish and Game Code makes it unlawful to "take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act."

3.2.3 Birds of Prev

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

3.2.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C., scc. 668-668c) prohibits anyone from taking bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.2.5 Bats

Section 2000 and 4150 of the California Fish and Game Code states that it unlawful to take or possess a number of species, including bats, without a license or permit as required by Section



3007. Additionally, Title 14 of the California Code of Regulations states it is unlawful to harass, herd, or drive a number of species, including bats. To harass is defined as "an intentional act which disrupts an animal's normal behavior patterns, which includes, but is not limited to, breeding, feeding or sheltering."

3.2.6 Wetlands and Other Jurisdictional Waters

The U.S. Army Corps of Engineers (USACE) regulates the filling or grading of waters of the U.S. under the authority of Section 404 of the Clean Water Act (CWA). Natural drainage channels and adjacent wetlands may be considered waters of the United States (hereafter referred to as "jurisdictional waters") subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

On June 29, 2015, the Environmental Protection Agency and USACE jointly issued the Clean Water Rule as a synthesis of statute, science, and U.S. Supreme Court decisions. The Clean Water Rule defines Waters of the U.S. to include the following:

- 1. All waters used in interstate or foreign commerce (also known as traditional navigable waters), including all waters subject to the ebb and flow of the tide;
- 2. All interstate waters including interstate wetlands:
- 3. The territories seas:
- 4. All impoundments of Waters of the U.S.;
- 5. All tributaries of waters defined in Nos. 1 through 4 abover, where "tributary" refers to a water (natural or constructed) that contributes flow to another water and is characterized by the physical indicators of a bed and bank and an ordinary high water (OHW) mark;
- 6. Adjacent waters, defined as either (a) located in whole or in part within 100 feet of the OHW mark of waters defined in Nos. 1 through 5 above, or (b) located in whole or in part within the 100-year floodplain and within 1,500 feet of the OHW mark of waters defined in Nos. 1 through 5 above;
- 7. Western vernal pools, prairie potholes, Carolina bays and Delmarva bays, pocosins, and Texas coastal prairie wetlands, if determined on a case-specific basis to have a significant nexus to waters defined in Nos. 1 through 3 above;
- 8. Waters that do not meet the definition of adjacency, but are determined on a case-specific basis to have a significant nexus to waters defined in Nos. 1 through 3 above, and are either (a) located in whole or in part within the 100-year floodplain of waters defined in Nos. 1 through 3 above, or (b) located within 4,000 feet of the OHW mark of waters defined in Nos. 1 through 5 above.

The 2015 rule also redefines exclusions from jurisdiction, which include:



- 1. Waste treatment systems;
- 2. Prior converted cropland;
- 3. Artificially irrigated areas that would revert to dry land should application of irrigation water to the area cease;
- 4. Groundwater;
- 5. Stormwater control features constructed to convey treat or store stormwater created in dry land; and
- 6. Three types of ditches: (a) ditches with ephemeral flow that are not a relocated or excavated tributary, (b) ditches with intermittent flow that are not a relocated or excavated tributary or that do not drain wetlands, and (c) ditches that do not flow, either directly or through another water, to a traditional navigable water.

A ditch may be a water of the U.S. only it if meets the definition of "tributary" and is not otherwise excluded under the provision.

All activities that involve the discharge of dredge or fill material into Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a CWA Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board has regulatory authority to protect the water quality of all surface water and groundwater in the State of California ("Waters of the State"). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into Waters of the State through the issuance of various permits and orders. Discharges into Waters of the State that are also Waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The RWQCB also administers the Construction Storm Water Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more

acres of soil must obtain a Construction General Permit under the Construction Storm Water Program. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, storm water, or other pollutants into a Water of the U.S. may require a NPDES permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

3.2.7 Local Policies and Ordinances

Tree Ordinance. The City of San Jose has a Tree Ordinance (Chapter 13.32 of the Municipal Code), which regulates the removal of trees. The City's Tree Ordinance seeks to:

Promote the health, safety, and welfare of the city by controlling the removal of trees in the city, as trees enhance the scenic beauty of the city, significantly reduce the erosion of topsoil, contribute to increased storm water quality, reduce flood hazards and risks of landslides, increase property values, reduce the cost of construction and maintenance of draining systems through the reduction of flow and the need to divert surface waters, contribute to energy efficiency and the reduction of urban temperatures, serve as windbreaks and are prime oxygen producers and air purification systems.

An "ordinance-size tree" is defined as any native or non-native tree with a circumference of 56 inches (diameter of 18 inches) at 24 inches above the natural grade of slope. For multi-trunk trees, the circumference is measured as the sum of the circumferences of all trunks at 24 inches above the natural grade of slope. The ordinance covers both native and non-native species. A tree removal permit is required from the City prior to the removal of any trees covered under the ordinance. Prior to the issuance of a removal permit, the City requires that a formal tree survey be conducted that indicates the number, species, trunk circumference and location of all trees which will be removed or impacted by the project.

3.2.8 San Jose General Plan

The Envision San Jose 2040 General Plan (General Plan) aims to protect biological resources when properties are developed in San Jose. The General Plan includes several policies relevant to biological protections including, but not limited to, the following:

- Policy MS-21.4: Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.
- Policy MS-21.5: As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and City of San José 33 Initial Study One South Market Street Residential Project December 2012 construction practices. Special priority should be given to the preservation of native oaks and native sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy.
- Policy MS-21.6: As a condition of new development, require, where appropriate, the
 planting and maintenance of both street trees and trees on private property to achieve a
 level of tree coverage in compliance with and that implements City laws, policies or
 guidelines.
- Policy MS-21.9: Where urban development occurs adjacent to natural plant communities (e.g., oak woodland, riparian forest), landscape plantings shall incorporate tree species native to the area and propagated from local sources (generally from within 5-10 miles and preferably from within the same watershed).
- Policy ER-1.4: Minimize the removal of ecologically valuable vegetation such as serpentine and non-serpentine grassland, oak woodland, chaparral, and coastal scrub during development and grading for projects within the City.
- Policy ER-1.5: Preserve and protect oak woodlands, and individual oak trees. Any loss of oak woodland and/or native oak trees must be fully mitigated.
- Policy ER-1.7: Prohibit planting of invasive non-native plant species in oak woodlands, grasslands, chaparral and coastal scrub habitats, and in hillside areas.
- Policy ER-4.1: Preserve and restore, to the greatest extent feasible, habitat areas that support special-status species. Avoid development in such habitats unless no feasible alternatives exist and mitigation is provided of equivalent value.
- Policy ER-4.2: Limit recreational uses in wildlife refuges, nature preserves and wilderness areas in parks to those activities which have minimal impact on sensitive habitats.
- Policy ER-4.3: Prohibit planting of invasive non-native plant species in natural habitats that support special-status species.
- Policy ER-4.4: Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species.



- Policy ER-5.2: Require that development projects incorporate measures to avoid impacts to nesting migratory birds.
- Policy ER-6.3: Employ low-glare lighting in areas developed adjacent to natural areas, including riparian woodlands. Any high-intensity lighting used near natural areas will be placed as close to the ground as possible and directed downward or away from natural areas.
- Policy ER-6.6: Encourage the use of native plants in the landscaping of developed areas adjacent to natural lands.
- Policy ER-6.8: Design and construct development to avoid changes in drainage patterns across adjacent natural areas and for adjacent native trees, such as oaks.

Projects must be consistent with all measures (Goals) of the General Plan.

3.3 IMPACTS AND MITIGATION MEASURES SPECIFIC TO THE PROJECT SITE

The following analysis assumes that bank stabilization work at the project site will be carried out as currently represented in the site plans provided by Questa Engineering Corporation (2018). Any appreciable difference in either scope or general location of the proposed project would require an additional impact assessment to ensure that unanticipated impacts to biotic resources are not likely to occur.

3.3.1 Impacts to Habitat for Special Status Plants

Potential Impacts. The proposed project would have no effect on any of the fourteen special status plant species that have been documented within the general project vicinity (Table 2), as these species are either absent from or unlikely to occur on the site due to unsuitable habitat conditions and lack of recent occurrences in the immediate vicinity of the site. Therefore, state and federal laws and local policies protecting special status plants would not be relevant to development of the site.

Mitigation. Mitigation measures are not warranted.

3.3.2 Impacts to Habitat for Special Status Animals

Potential Impacts. Of the thirty-one special status animal species known to occur in the region, thirteen—steelhead, longfin smelt, western pond turtle, California black rail, California Ridgway's rail, yellow rail, golden eagle, burrowing owl, peregrine falcon, northern harrier, white-tailed kite, saltmarsh common yellowthroat, Alameda song sparrow—have the potential to occur on the site. The remaining species would be absent from or unlikely to occur on the site due to the absence of



suitable habitat, project location (e.g., outside of the common range for species or location near existing development), or land use/management regime on the site. Proposed construction activities would have no effect on these species because there is little to no likelihood that they are present.

The USACE has authorized the project under Nationwide Permit 13 (File number 2018-00269S) after consulting with the USFWS and the National Marine Fisheries Service (NMFS). The USFWS concurred with the determination that the project was not likely to adversely affect the California Ridgway's rail and salt marsh harvest mouse, while NMFS concurred with the determination that the project was not likely to adversely affect green sturgeon and steelhead or designated critical habitat for these species (USACE 2018).

In addition to the protection measures incorporated into the project, a draft Streambed Alteration Agreement (Notification Number 1600-2018-0213-R3) issued by the CDFW for the project requires specific protection measures, including, but not limited to, pre-construction fish and wildlife surveys, work timing restrictions, and exclusion fencing and monitoring (CDFW 2018b).

Special status fish and western pond turtles. For a discussion of impacts to special status fish and western pond turtles, see sections 3.3.3 and 3.3.4, respectively.

Special status birds. The California black rail, California Ridgway's rail, yellow rail, golden eagle, burrowing owl, peregrine falcon, northern harrier, white-tailed kite, saltmarsh common yellowthroat, and Alameda song sparrow may occur more frequently as occasional or regular foragers or may be residents on the site. All of these species may forage in the marshlands and ruderal grasslands of the site year-round or during migration.

Total project impacts are limited to approximately 0.33 ac. Approximately 1,650 sq ft of rip rap will be placed below MHHW. This includes an approximately 400 sq ft planting bench of alkali bulrush within the planned revetment area. It is expected that the alkali bulrush will colonize areas of the revetment above and below the planting bench, eventually blending with the existing vegetation up- and downstream from the site. Above the revetment area, the reconstructed bank slope will be planted with native seed appropriate to the transitional zone between marsh and upland habitats. Thus, most impacts are considered temporary, and habitat conditions on the site

are expected to improve following project buildout. Due to the limited area and temporary nature of the impacts, and because the project proposes to improve habitat conditions on the site, impacts to habitat for special status bird species would be considered less than significant.

Proposed construction activities that result in mortality, injury, or other harm of individual birds of any of these species would be considered a significant impact. For additional discussion of impacts to these special status bird species and other migratory birds or birds of prey, see section 3.3.5.

Salt marsh harvest mouse and salt marsh wandering shrew. The project site does not provide suitable habitat for salt marsh harvest mouse or salt marsh wandering shrew. Brackish marsh habitat on the site is extremely limited, and salt marsh plant associations that these species are typically found in (i.e., pickleweed) are absent from the site. Therefore, impacts to habitat for these species would be considered less than significant.

Mitigation. Mitigation measures are not warranted.

3.3.3 Impacts to Special Status Fish

Potential Impacts. The project will result in a less-than-significant impact to habitat for green sturgeon, steelhead, and longfin smelt (section 3.3.2). Green sturgeon are not known to occur in south San Francisco Bay. While steelhead and longfin smelt are known to occur in Coyote Creek, the project area does not constitute spawning habitat. At most, these species would be expected to migrate through the project area.

The USACE has authorized the project under Nationwide Permit 13 (File number 2018-00269S) after consulting with the National Marine Fisheries Service (NMFS). NMFS concurred with the determination that the project was not likely to adversely affect green sturgeon and steelhead or designated critical habitat for these species (USACE 2018).

A turbidity curtain will be installed around the in-stream work area to minimize the deposition of fine silt and sediment into the creek channel beyond the work area, resulting in a temporary reduction of aquatic habitat during construction. Because the turbidity curtain will only enclose the work area, fish would still be able to pass through this reach of Coyote Creek. Following

project buildout, the turbidity curtain would be removed, once again allowing full use of the creek channel.

Protection measures have been incorporated into the project design in order to avoid and minimize impacts to fish. Construction is proposed to occur between June 15 and October 15, when flows within Coyote Creek would be at their lowest and special status fish are not expected to be migrating through the project area. Fish will be excluded from the work area by qualified biologists during installation of the turbidity curtain, and a biological monitor will be present during installation. Therefore, no fish are expected to occur within the work area during construction. Additionally, construction personnel will be trained on special status fish that could occur in the project area and measures being taken to protect them.

In addition to the protection measures incorporated into the project, a draft Streambed Alteration Agreement (Notification Number 1600-2018-0213-R3) issued by the CDFW for the project requires pre-construction fish and wildlife surveys within 48 hours prior to each phase of construction (CDFW 2018b).

Because impacts to fish habitat would be temporary, and because protection measures will be implemented as part of project buildout, impacts to special status fish are considered to be less than significant.

Mitigation. Mitigation measures are not warranted.

3.3.4 Impacts to Western Pond Turtles from Project Construction

Potential Impacts. The project will result in a less-than-significant impact to habitat for western pond turtles (Section 3.3.2). However, individuals are known to occur along Coyote Creek and may forage within the project area. Construction activities associated with the bank repair work (e.g., grading or rock placement) may result in harm, injury, or death of individuals, which would be considered a significant impact.

Mitigation. As part of the project design, exclusion fencing will be installed around the perimeter of the project site. The following mitigation measures are in addition to the proposed exclusionary fencing in order to avoid and minimize impacts to western pond turtles.



Pre-construction Surveys and Monitoring. A qualified biologist should survey the project site the morning prior to initiation of work. The monitor should be present during initial ground disturbance or vegetation clearing or other periods during construction, as necessary. If western pond turtles are detected during the pre-construction or monitoring surveys, the qualified biologist will halt work until such time the individual(s) either move clear of the construction zone on their own or, if authorized by the CDFW, the biologist will capture and move individuals to a suitable area up- or downstream from the site. Any individuals that are captured should be held for the minimum amount of time necessary to release them back into or near the creek channel and out of the work zone.

Tailgate Training. A tailgate training should be conducted by a qualified biologist for all workers associated with construction of the project. The training should include a description of minimization measures and instructions on what to do if a western pond turtle is observed on the project site.

3.3.5 Impacts to Special Status Birds, Migratory Birds, and Other Birds of Prey

Potential Impacts. While no nests were observed on the site, ruderal and marsh vegetation on the site and immediately adjacent to the site provide suitable habitat for nesting avian species, including California black rail, California Ridgway's rail, yellow rail, golden eagle, peregrine falcon, northern harrier, white-tailed kite, saltmarsh common yellowthroat, Alameda song sparrow, and other migratory birds and birds of prey. Burrowing owls may establish nests in ground squirrel burrows occurring within the project area. Other ground-nesting species (e.g., northern harriers) may also establish nests or otherwise occur on the site in the future. A fan palm (Washingtonia sp.) along the bank approximately 200 feet northwest of the project site could potentially provide suitable habitat for nesting birds. If a special status bird, migratory bird or bird of prey were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may disrupt nesting behavior or could result in the abandonment of active nests or direct mortality or other harm to these birds.

Construction activities that adversely affect the nesting success of special status birds, migratory birds and other birds of prey or result in mortality, injury, or other harm of individual birds would be considered a significant impact.

Mitigation. To the maximum extent practicable, site grading and other vegetation removal activities should occur during the non-breeding season (September 1 through January 31). If vegetation removal, grading, or construction is planned to occur within the breeding period (i.e., between February 1 and August 31), pre-construction surveys should be conducted by a qualified biologist. The first survey should be conducted within 14 days of the onset of ground disturbance, and a second survey should be conducted within 48 hours prior to the onset of ground disturbance. The pre-construction surveys should include all trees, large shrubs, marsh vegetation, or other areas of potential nesting habitat within the construction footprint and within 250 ft of the footprint, where accessible, for active nests of birds of prey and migratory birds. If such activities are planned to commence outside the breeding period, no pre-construction surveys are required for nesting birds and raptors, as they are expected to abandon their roosts during construction.

If the target species are deemed absent from the area, then no mitigations are required, and construction could occur within 14 days following the survey.

If nesting raptors or other migratory birds are detected on the site or within 250 ft of the site during the survey, a suitable construction-free buffer should be established around all active nests. The precise dimension of the buffer, which is typically up to 250 ft, would be determined at that time and may vary depending on such factors as location, species, topography, and line of sight to the construction area. The buffer area should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

A draft Streambed Alteration Agreement (Notification Number 1600-2018-0213-R3) issued by the CDFW for the project includes a number of conditions for protecting nesting birds (CDFW 2018b). Once the agreement has been finalized, the applicant will be required to comply with these conditions.

Implementation of the above measures would ensure that construction of the project would have no impact on nesting raptors and migratory birds and that the project would be in compliance with state and federal laws protecting these species.

3.3.6 Impacts to Jurisdictional Waters or Riparian Habitats

Potential Impacts. Coyote Creek is a water of the U.S. and, as such, is subject to the regulatory authority of the USACE and RWQCB. The CDFW would take jurisdiction over Coyote Creek as well. Proposed project activities include grading of the channel bank and subsequent placement of rock and concrete rip rap into the channel below MHHW. The area of rip rap will total approximately 1,650 sq ft.

The project also includes measures to improve habitat conditions on the site. This includes an approximately 400 sq ft planting bench of alkali bulrush within the planned revetment area. It is expected that the alkali bulrush will colonize areas of the revetment above and below the planting bench, eventually blending with the existing vegetation up- and downstream from the site. Above the revetment area, the reconstructed bank slope will be planted with native seed appropriate to the transitional zone between marsh and upland habitats.

Because the proposed project has incorporated measures to improve habitat quality and value above that of the existing condition, impacts to jurisdictional waters are considered to be less than significant under CEQA.

Mitigation. Mitigation measures are not warranted.

Regulatory issues. The project proponent must comply with all state and federal laws and regulations related to disturbance to jurisdictional waters. At the time this report was prepared, the applicant has received project authorization from the USACE under Nationwide Permit 13 (File number 2018-00269S) (USACE 2018). A draft Streambed Alteration Agreement (Notification Number 1600-2018-0213-R3) has also been issued for this project by the CDFW (CDFW 2018b). The applicant will also be required to obtain a Clean Water Act Section 401 water quality certification from the RWQCB prior to initiating any construction within these habitats. The project proponent would need to satisfy all agency mitigation requirements to compensate for aquatic impacts.

3.3.7 Conflict with an Adopted Habitat Conservation Plan

Potential Impacts. To date, there are no adopted habitat conservation plans that cover the project site. The project site occurs outside of the Santa Clara Valley Habitat Plan area. Therefore, the project would not be in conflict with an adopted habitat conservation plan.

Mitigation. Mitigation measures are not warranted.

3.3.8 Interference with the Movement of Native Wildlife

Potential Impacts. Although the Coyote Creek channel occurring onsite facilitates the movement of wildlife through the site (section 2.3), the proposed project is not expected to have a significant effect on home range and dispersal movements of native wildlife that may occur in the region. Construction activities may result in a temporary disruption of local wildlife movements during daylight hours, but these activities are not expected to result in any permanent or substantial changes in wildlife use or movement patterns once construction is complete. Following buildout, the proposed project is not expected to reduce the capability of the Coyote Creek channel to facilitate the migration and dispersal of wildlife through the region. Wildlife species presently using the channel are expected to continue moving along it following project buildout. Therefore, the proposed project would have a less-than-significant impact on movements of native wildlife in the region.

Mitigation. Mitigation measures are not warranted.

3.3.9 Loss of Habitat for Native Wildlife

Potential Impacts. The habitats of the site comprise only a portion of most wildlife's entire home range or territory. As such, some species may disperse through the site, but most wildlife presently using the site do so as part of their normal movements for foraging, mating, and caring for young. Wildlife species that use the site would be temporarily displaced for the duration of construction but would be expected to resume normal use of the site following project completion.

Total project impacts are limited to approximately 0.33 ac. Approximately 1,650 sq ft of rip rap will be placed below MHHW. This includes an approximately 400 sq ft planting bench of alkali bulrush within the planned revetment area. It is expected that the alkali bulrush will colonize areas of the revetment above and below the planting bench, eventually blending with the existing

vegetation up- and downstream from the site. Above the revetment area, the reconstructed bank slope will be planted with native seed appropriate to the transitional zone between marsh and upland habitats. Thus, most impacts are considered temporary, habitat conditions on the site are expected to improve following project buildout, and the project would not result in a wildlife population dropping below self-sustaining levels or threaten to eliminate an animal community.

Due to the limited area and temporary nature of the impacts, and because the project proposes to improve habitat conditions on the site, impacts to habitat for these species would be considered less than significant.

Mitigation. Mitigation measures are not warranted.

3.3.10 Degradation of Water Quality in Seasonal Creeks, Reservoirs, and Downstream Waters

Potential Impacts. Proposed bank stabilization activities, including vegetation removal and grading, will result in soils temporarily left barren in the project footprint and, therefore, vulnerable to sheet, rill, or gully erosion. Eroded soil can be deposited into Coyote Creek. Furthermore, runoff is often polluted with grease, oil, pesticide and herbicide residues, heavy metals, and other pollutants. These pollutants may eventually be carried to sensitive habitats downstream used by a diversity of native wildlife species.

Protection measures have been incorporated into the project design in order to reduce erosion and protect water quality. A turbidity curtain will be installed around the in-stream work area to minimize the deposition of fine silt and sediment into the creek channel beyond the work area. Additionally, a small planting bench of alkali bulrush and revegetation of the upper bank slope will facilitate the reestablishment of marsh and upland habitats within the work area following project completion. Furthermore, the applicant is expected to comply with the provisions of a grading permit, including standard erosion control measures that employ best management practices (BMPs). Compliance with the necessary permit(s) should result in no impact to water quality in seasonal creeks, reservoirs, and downstream waters from the proposed project and should not result in the deposition of pollutants and sediments in sensitive riparian and wetland habitats.

Mitigation. Mitigation measures are not warranted.



3.3.11 Conflict with Local Policies and Ordinances

Potential Impacts. The project would need to be in conformance with the City of San Jose's tree ordinance and General Plan to ensure there is no significant effect under CEQA.

Tree Ordinance. No trees are present on the site. Therefore, this ordinance is not relevant to the project.

General Plan. The Envision San Jose 2040 General Plan includes policies adopted by the City of San Jose that aim to protect biological resources during implementation of new projects. The proposed project is expected to comply with the General Plan policies.

Mitigation. Mitigation measures are not warranted.



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APPENDIX A: VASCULAR PLANTS OF THE STUDY AREA

The plant species listed below were observed on the Newby Island Landfill Bank Stabilization site during field surveys conducted by Live Oak Associates in October 2018. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

OBL - Obligate FACW - Facultative Wetland FAC - Facultative FACU - Facultative Upland UPL - Upland

AIZOACEAE – Fig-Marigold Family Carpobrotus edulis*	Ice plant	UPL
APIACEAE – Carrot Family Foeniculum vulgare*	Sweet fennel	UPL
BRASSICACEAE – Mustard Family Lepidium latifolium*	Broadleaved peppergrass	FAC
CHENOPODIACEAE – Goosefoot Family Chenopodium album*	Lamb's quarters	FACU
CYPERACEAE – Sedge Family Schoenoplectus acutus	Hardstem bulrush	OBL
FRANKENIACEAE – Heath Family Frankenia salina	Alkali heath	FACW
MALVACEAE – Mallow Family Malva sp.*	Mallow	UPL
POACEAE - Grass Family		
Bromus diandrus* Cynodon dactylon* Festuca perennis* Phalaris californica Polypogon monspeliensis*	Ripgut brome Bermuda grass Italian ryegrass Canary grass Rabbitsfoot grass	UPL FACU FAC - FACW
POLYGONACEAE – Buckwheat Family		
Eriogonum sp.	Wild buckwheat	- EAC
Rumex crispus*	Curly dock	FAC

^{*} Introduced, non-native species

APPENDIX B: REPRESENTATIVE SITE PHOTOS



Ruderal vegetation along the Coyote Creek erosion site, with tidal brackish marsh at the base of the levee slope. Facing east.



Ruderal vegetation along the Coyote Creek erosion site, with tidal brackish marsh at the base of the levee slope. Facing west.



Erosion repair project location view from the top of the levee.



Levee access road facing east with the gas collector pipeline south of the levee.



Existing gravel staging area facing southwest.



Existing gravel staging area facing south.

Appendix C

Draft Streambed Alteration Agreement and Nationwide Permit 13



California Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE Bay Delta Region 2825 Cordelia Road, Suite 100 Fairfield, CA 94534

EDMUND G. BROWN, Jr., Governor CHARLTON H. BONHAM, Director



www.wildlife.ca.gov

(707)428-2002

November 9, 2018

Evan Boyd International Disposal Corp of CA 1601 Dixon Landing Rd Milpitas, CA 95035

Dear Mr. Boyd:

Draft Streambed Alteration Agreement, Notification No. 1600-2018-0213-R3, Newby Island Landfill - Tidal Channel Stabilization

The California Department of Fish and Wildlife (CDFW) has determined that your project requires a Lake or Streambed Alteration Agreement (Agreement) because it could substantially adversely affect an existing fish or wildlife resource. Enclosed is a draft Agreement that includes measures CDFW has determined are necessary to protect existing fish and wildlife resources.

Within 30 days of receipt of this draft Agreement, you must notify CDFW in writing whether the measures to protect fish and wildlife resources are acceptable (Fish and G. Code, § 1603). If you agree with the measures set forth in the draft Agreement, you or your authorized representative must return two copies of the draft Agreement with original signatures to the above address.

If you disagree with any measures in the draft Agreement, please contact the CDFW staff identified below. In the event that mutual agreement is not reached, you may follow the dispute resolution process described in Fish and Game Code section 1603, subdivision (a). If you fail to respond in writing within 90 days of receiving the draft Agreement, CDFW may withdraw the draft Agreement.

Please be advised CDFW may not execute the Agreement until it has complied with the California Environmental Quality Act (CEQA) (Public Res. Code, § 21000 et seq.) as the lead or a responsible agency. Please note that the draft Agreement may be subject to change upon receipt and review of the environmental document for the project.

When acting as a CEQA responsible agency, CDFW must first receive the following: 1) a certified or approved environmental document prepared in accordance with CEQA; 2) Notice of Determination, if one is filed; 3) CEQA Findings; and 4) proof that the environmental filing fee required under Fish and Game Code section 711.4 has been paid. If the lead agency determined that the project is exempt under CEQA, please provide a copy of the Notice of Exemption or other information that indicates the basis for the exemption.

Mr. Evan Boyd November 9, 2018 Page 2 of 2

After you receive a final Agreement executed by CDFW, you may begin the project the Agreement authorizes provided you have obtained all other necessary local, state, and federal permits or other authorizations.

For more information on the process described above, please refer to Part IV in the "Notification Instructions and Process" included with your notification materials, which is also available at https://www.wildlife.ca.gov/Conservation/LSA/Forms.

If you have any questions regarding this matter, please contact Kristin Garrison, Environmental Scientist at (707)944-5534 or by email at Kristin.Garrison@wildlife.ca.gov.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BAY DELTA REGION 2825 CORDELIA ROAD, SUITE 100 FAIRFIELD, CA 94534 (707) 944-5500 WWW.WILDLIFE.CA.GOV



STREAMBED ALTERATION AGREEMENT

NOTIFICATION NUMBER 1600-2018-0213-R3
NEWBY ISLAND LANDFILL - TIDAL CHANNEL STABILIZATION
Coyote Creek, a tributary to San Francisco Bay

Evan Boyd International Disposal Corp of CA 1601 Dixon Landing Rd Milpitas, CA 95035 eboyd@republicservices.com

This 1600-2018-0213-R3 Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and International Disposal Corp of CA (Permittee), as represented by Evan Boyd.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on July 3, 2018 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The Newby Island Landfill - Tidal Channel Stabilization (Project) is located within the Newby Island Landfill property at 1601 Dixon Landing Rd, Milpitas, Santa Clara County, California, 95035 (Exhibit A). The coordinates are 37°27'17.58"N latitude and -121°55'58.96"W longitude (NAD 83 or WGS 84). The Assessor's Parcel Number is 015-40-005.

Notification #1600-2018-0213-R3 Streambed Alteration Agreement Page 2 of 19

PROJECT DESCRIPTION

The Project will repair and prevent bank erosion along a 138-foot section of Coyote Creek. The stabilization will include approximately 1,200 cubic feet of rip rap and 5 woody debris structures.

There will be permanent impacts to 0.002 acres of tidal brackish wetlands and 0.07 acres of aquatic habitat (void of vegetation). There will be temporary impacts to 0.06 acres of ruderal grassland habitat. Approximately 0.009 acres of bulrush will be planted.

PROJECT IMPACTS

Existing fish or wildlife resources that the Project could substantially adversely affect include:

- Salt-marsh harvest mouse (*Reithrodontomys raviventris*; SMHM) State Endangered and Fully Protected, Federal Endangered
- Salt-marsh wandering shrew (shrew) (Sorex vagrans halicoetes) State Species of Special Concern
- California Ridgway's rail (Rallus obsoletus obsoletus) State Endangered and Fully Protected, Federal Endangered
- California black rail (Laterallus jamaicensis coturniculus) State Threatened and Fully Protected
- White-tailed kite (Elanus leucurus) State Fully Protected
- Tricolored blackbird (Agelaius tricolor) State Threatened
- Alameda song sparrow (Melospiza melodia pusillula) State Species of Special Concern
- San Francisco common yellowthroat (Geothlypis trichas sinuosa) State Species of Special Concern
- Western pond turtle (WPT) (Emys marmorata) State Species of Special Concern
- Steelhead (Oncorhynchus mykiss), Central California Coast Distinct Population Segment (DPS) - Federal Threatened
- Green sturgeon (Acipenser medirostris), southern DPS (southern green sturgeon) - Federal Threatened
- Longfin smelt (Spirinchus thaleichthys) State Threatened
- other aguatic and terrestrial wildlife species

The adverse effects that the Project could have on the fish or wildlife resources identified above, without implementation of the Measures to Protect Fish and Wildlife Resources specified below, include:

- Temporary loss of bank stability during construction
- Increase of bank erosion during construction
- Increased sedimentation from adjacent construction
- Disruption to nesting birds

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 <u>Documentation at Project Site</u>. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the Project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the Project at the Project site on behalf of the Permittee, including, but not limited to contractors, subcontractors, inspectors and monitors.
- 1.3 <u>Notification of Conflicting Provisions</u>. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the Project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.
- 1.4 <u>Project Site Entry</u>. Permittee agrees that CDFW personnel may enter the Project site at any time to verify compliance with the Agreement.
- 1.5 <u>Notification of Commencement and Completion of Work</u>. Permittee shall notify CDFW within five (5) working days of beginning work and within five (5) working days of completion of work for each construction season covered in this Agreement. Notification shall be made to Kristin Garrison, Environmental Scientist, at 707-944-5534 or kristin.garrison@wildlife.ca.gov.
- 1.6 <u>Unauthorized Take</u>. This Agreement does not authorize the take, including incidental take, of any state or federally listed threatened or endangered species, or of species that are otherwise protected under FGC. Permittee may be required, as prescribed in the California Endangered Species Act (CESA) and U.S. Endangered Species Act (ESA), to obtain take coverage for State and federally listed species prior to commencement of the Project. Any unauthorized take of listed species may result in prosecution and nullification of this Agreement.
- 1.7 <u>Traversing Another Property</u>. To the extent that any provisions of this Agreement provide for activities that require Permittee to traverse another

Notification #1600-2018-0213-R3 Streambed Alteration Agreement Page 4 of 19

owner's property, such provisions are agreed to with the understanding that Permittee possesses the legal right to so traverse. In the absence of such right, any such provision is void.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

Construction Measures

Work Period and Schedule

- 2.1 Work Period. Construction work within the stream banks and riparian corridor shall be confined to the period of June 15 to October 15. Riparian restoration plantings and seeding work using hand tools is not confined to this time period but shall be completed within the wet season the same year following completion of the Project.
- 2.2 <u>Work Period Modification</u>. If Permittee needs more time to complete Project activities, work may be authorized outside of the work period and extended on a day-to-day basis by CDFW representative, Kristin Garrison, at 707-944-5534 or kristin.garrison@wildlife.ca.gov, or if unavailable, through contact with the CDFW Bay Delta Regional Office by mail or by phone (707) 428-2002).
 - If Permittee requests a work period modification, Permittee shall submit such a request in writing to the CDFW Bay Delta Office. The request shall: 1) describe the extent of work already completed; 2) detail the activities that remain to be completed; 3) detail the time required to complete each of the remaining activities; and 4) provide photographs of both the current work completed and the proposed site for continued work. The work period modification shall be issued at the discretion of CDFW. CDFW reserves the right to require additional measures to protect biological resources as a condition for granting the modification. CDFW shall have 7 calendar days to review the proposed work period modification.
- 2.3 Work Period in Dry Weather Only- Check Forecast. Project construction work conducted shall be restricted to limited flow and dry weather as allowed during the work period specified in Measure 2.1. Work within the stream zone shall be timed with awareness of precipitation forecasts and potential increases in stream flow and flood stages. Construction activities shall cease when the National Weather Service (NWS) 48-hour weather forecast indicates a 30 percent or higher chance of precipitation. All necessary erosion control measures shall be implemented prior to the onset of precipitation. Construction equipment and materials shall be removed if inundation is likely. Construction activities halted due to precipitation may

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resume when precipitation ceases and the NWS 48-hour weather forecast indicates a 30 percent or less chance of precipitation, provided no work occurs in the streambed if water is flowing. No work shall occur during a dryout period of 24 hours after a precipitation event that produces 0.2 inches or greater of rain. If work is conducted within 24 hours after a precipitation event that produces less than 0.2 inches of rain, additional erosion control materials may be needed to prevent saturated soil from entering the channel. Weather forecasts shall be documented upon request by CDFW.

2.4 Work Period in Dry Weather Only- Erosion Control. In accordance with weather restrictions described in Measure 2.3, if Project work may cause the introduction of sediments into a stream: 1) no phase of the Project shall start unless all work for that phase and all associated erosion control measures are completed prior to the onset of precipitation; and 2) no phase of the Project shall start unless all equipment and materials are removed from the stream at least 12 hours prior to the onset of precipitation and all associated erosion control measures are in place prior to the onset of precipitation.

Construction

- 2.5 <u>Final Construction Plans</u>. Permittee has provided 90% percent submittal design plans, dated November 1, 2018. Permittee shall submit final Project construction plans, designs and specifications to CDFW for review and written acceptance within a minimum of 30 calendar days prior to the start of Project construction work.
- 2.6 Notification of Changes to Plans. The Permittee has provided final design plans, dated blank. Permittee shall notify CDFW in writing of any modifications made to the final Project construction plans/designs a minimum of 30 days prior to the changes being implemented. Any modification to plans or designs shall be subject to CDFW review and written acceptance and may require an amendment to this Agreement.
- 2.7 Work Area Delineation. Permittee shall place flagging around the construction corridor within the stream, riparian, and wetland areas. Flagging shall be removed and appropriately disposed of within 5 calendar days of the completion of construction work. Access paths and staging areas shall be adequately temporarily fenced or flagged to prevent damage to adjacent stream, riparian or wetland habitat.
- 2.8 <u>Staging Equipment</u>. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of waters of the State, including stream, riparian, floodplain and wetland areas. Best management practices such as high-visibility temporary construction fencing, erosion control and daily equipment inspections shall be used to protect nearby sensitive resources. Stationary equipment such as motors, pumps,

generators, compressors and welders, located within or adjacent to waters of the State shall be positioned over drip-pans. Any equipment or vehicles driven and/or operated within or adjacent to waters of the State must be checked and maintained daily to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. Vehicles shall be moved away at a minimum distance of 300 feet from the stream, riparian or wetland habitat prior to refueling and lubrication. Secondary containment methods, including drip pans and/or placement of absorbent material, shall be used around equipment to protect sensitive resources from any spills that may occur.

- 2.9 Spoils. Permittee shall not place spoil where it may enter a stream, riparian or wetland area, or other vegetation except as described in this Agreement or specifically disclosed to and approved by CDFW in writing. Spoil shall be hauled offsite or stockpiled in an upland location where it shall be covered with plastic sheeting or visquine whenever it is evident that rainy conditions threaten to erode loose soils into sensitive habitats.
- 2.10 <u>Imported Materials</u>. Permittee shall not import, move, or remove any rock, gravel, and/or other materials within the streambed or banks except as otherwise addressed in this Agreement.
- 2.11 <u>Debris Exclusion from Channel</u>. Permittee shall take action to ensure that debris originating from Project activities does not enter the channel or banks. Any debris that inadvertently enters the channel or bank shall be removed and disposed of according to State and local laws and ordinances.
- 2.12 <u>Contaminants</u>. Debris, soil, silt, bark, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil, gasoline or diesel fuel, or other petroleum products, or any other substances which could be hazardous to aquatic life resulting from Project activities shall be prevented from contaminating the soil and/or entering waters of the State. Permittee shall immediately remove any of these materials that are placed within or where they may enter a FGC section 1600 jurisdictional stream or wetland as a result of Project activities.
- 2.13 <u>Spill Containment</u>. All activities performed in or within 50 feet of a watercourse shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. When spills occur, the Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550, immediately initiate the cleanup activities and then inform CDFW of status within the same day.
- 2.14 <u>Hazardous Spill Plan</u>. A hazardous spill plan will be developed prior to construction of each action. The plan will describe what actions will be taken in the event of a spill. The plan will also incorporate preventative measures to

be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained, and mitigated the spill. The contractor will immediately prevent further contamination and notify appropriate authorities, and mitigate damage as appropriate.

- 2.15 Rock Slope Protection (RSP). Un-grouted RSP shall consist of clean rock, competent for the application, sized, and properly installed to resist washout. Articulated concrete blocks may be used instead of RSP, when appropriate. RSP slopes shall be supported with competent boulders keyed into a footing trench with a depth sufficient to properly seat the footing comprised of coarse boulders and prevent instability. RSP slopes and footing trenches shall feature an underlayment of appropriate grade geo-textile fabric on slopes less than 1:1, or gravel blanket on slopes greater than 1:1. The rock slope protection shall be placed in a smooth curve along the natural bank alignment, shall not project out into the channel beyond the limits of the natural bank, and shall not include any "barbs" or "groins", or other features which will deflect the flow against the opposite bank, or cause the formation of downstream eddies. Any other bank stabilization method is subject to CDFW written approval.
- 2.16 <u>Riprap Defined</u>. For the purposes of this Agreement, riprap shall be defined as RSP as described below. Percentage limits for the specified size of riprap within an area shall not be exceeded.

1 ton riprap:	0-5% 2 ton rock, 50-100% 1 ton rock, 0-5% 1/4 ton
	rock.
½ ton rock	0-5% 1 ton rock, 50-100% ½ ton rock, 0-5% 200-lb. rock.
1/4 ton riprap	0-5% ¼ ton rock, 50-100% 200-lb rock, 0-5% 75-lb. rock.
Light riprap	0-5% ¼ ton rock, 50-100% 200 lb. rock, 0-5% 25 lb. rock.
Facing riprap	0-5% 200 lb. rock, 50-100% 75 lb. rock, 0-5% 25 lb. rock

Rocks shall be of such shape as to form a stable protection structure of the required section. Rounded boulders or cobbles shall not be used on prepared ground surfaces having slopes steeper than 2:1. Angular shapes may be used on any planned slope. Flat or needle shapes shall not be accepted unless the thickness of the individual pieces is greater than 1/3 the length.

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Erosion Control

- 2.17 <u>Revegetation</u>. Permittee shall revegetate areas of bare ground resulting from construction activities, with native grasses or other method upon written approval by CDFW prior to starting revegetation work. Local native grass species include, but are not limited to, meadow barley (*Hordeum brachyantherum ssp. Californicum*), blue wildrye (*Elymus glucus*), California brome (*Bromus carinatus*), creeping wildrye (*Elymus triticoides*), California oatgrass (*Danthonia californica*) and California melic (*Melica californica*). Locally native wildflower seeds may also be included in the seed mix.
- 2.18 Erosion Control Materials. Permittee shall place erosion protection in areas where vegetation cannot reasonably be expected to become re-established. Permittee shall not use erosion control materials containing plastic monofilament netting (erosion control matting) or similar material containing netting within the Project area or mitigation areas due to documented evidence of amphibians and reptiles becoming entangled or trapped in such material. Acceptable substitutes include coconut coir matting, straw/coconut fiber erosion blanket, straw wattles, or tackified hydroseeding compounds. These materials shall be placed in a manner so that erosion protection is provided, but that the materials blend with the natural contours of the stream bank. Erosion control measures shall be monitored during and after each storm event. Modifications, repairs and improvements to erosion control measures shall be made whenever they are needed.
- 2.19 <u>Erosion Control Installation Time Period</u>. Permittee shall install all erosion control plantings, seeding, and materials soon as possible after Project activities in those areas cease. Seeding placed after October 15 shall be covered with broadcast straw, jute netting, coconut fiber blanket or similar erosion control blanket.

Biological Measures

General

2.20 <u>CDFW-Approved Qualified Biologist(s)</u> and <u>Biological Monitor(s)</u>. Permittee shall submit the names and resumes of all biologists and biological monitors involved in conducting survey and/or monitoring work to CDFW for review and written approval. These resumes shall be provided at least 30 days prior to initiating fish and wildlife surveys.

A qualified biologist is an individual who shall have a minimum of five years of academic training in biological sciences and related resource management activities with a minimum of two seasonal years conducting surveys for each special-status species that may be present within the Project area. During or following academic training, the qualified biologist shall have achieved a high

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level of professional experience and knowledge in biological sciences and special-status species identification, ecology and habitat requirements.

A biological monitor is an individual who shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this Project, experience with construction-level biological monitoring, be able to recognize species that may be present within the Project area, and be familiar with the habits and behavior of those species.

- 2.21 Training Session for Personnel. Permittee shall ensure that the qualified biologist conducts an education program for all persons employed on the Project prior to performing work activities. Training shall consist of a presentation by the designated qualified biologist that includes a discussion of the biology and general behavior of any sensitive species which may be in the work area, how they may be encountered within the work area, and procedures to follow when they are encountered. The status of CESA-listed and fully protected species including legal protection, penalties for violations, and Project-specific protective management measures provided in this Agreement shall be discussed. Interpretation shall be provided for non-English speaking workers and the same instruction shall be provided for any new workers hired after the initial training. Copies of the Agreement for this Project shall be maintained at the worksite with the Project supervisor. The Permittee or qualified biologist shall prepare and distribute wallet-sized cards or a factsheet handout containing this information for workers to carry on-site. Upon completion of the training, employees shall sign an affidavit stating they attended the training and understand all protection measures. The affidavits shall be filed at the Permittee's office and be available to CDFW upon request.
- 2.22 Pre-Construction Fish and Wildlife Surveys. Within 48 hours prior to each phase of construction work within the Project area, the CDFW-approved qualified biologist shall conduct pre-construction surveys for presence of special-status fish and wildlife species within all construction areas, staging areas, and access routes, herein referred to as the Project Work Area. Permittee shall survey for species included under Project Impacts section of this Agreement. Surveys shall be conducted at the appropriate time of day and in habitat suitable for each of the species. If state or federally listed species are found, work shall cease and the qualified biologist shall contact CDFW and the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) for further guidance and approval to continue work. If any State special-status species are found, the biologist shall contact (or leave a message for) Kristin Garrison, at 707-944-5534 or Kristin.Garrison@wildlife.ca.gov, or the Napa office at (707) 944-5500 within 4

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hours. CDFW reserves the right provide additional provisions to this Agreement designed to protect special-status species.

- 2.23 Special-Status Species Encountered During Work. If special-status species are encountered during work, Permittee shall notify CDFW immediately. If there is imminent danger of injury to special-status species from Project activities, and the special-status species individual(s) do not move out of the work area on their own, a CDFW-approved qualified biologist shall relocate the individual(s) to suitable habitat located at a safe distance away (a minimum of 250 feet) from the construction area. For any CESA and/or ESA listed species, only a biologist with the necessary permits issued by CDFW, USFWS, and/or NMFS can handle and relocate listed species. The biologist shall contact CDFW within 24 hours of relocation activities. Through consultation with CDFW, additional measures may be developed to protect special-status species.
- 2.24 Nesting Bird Surveys. If Project-related work is scheduled during the nesting season (see Measure 2.25), a CDFW-approved qualified biologist shall conduct two surveys for active nests of such birds within 14 days prior to the beginning of Project construction, with a final survey conducted within 48 hours prior to construction. The minimum survey radii surrounding the work area shall be the following: i) 250 feet for passerines; ii) 500 feet for burrowing owl and other small raptors such as accipiters; and iii) 1,000 feet for larger raptors such as buteos.

Surveys shall be conducted at the appropriate times of day, and during appropriate nesting times and shall concentrate on areas of suitable habitat. If a lapse in Project-related activities of 15 days or longer occurs, another survey, and if required, consultation with CDFW and USFWS will be required before construction can be reinitiated. If an active nest is found, the qualified biologist shall consult with CDFW and the USFWS regarding appropriate action to comply with the FGC of California, CESA (if applicable), and the federal Migratory Bird Treaty Act (MBTA) of 1918.

- 2.25 <u>Nesting Seasons</u>. Nesting seasons are typically defined as followed: a) February 15 to August 30 for small bird species such as passerines; b) February 1 to August 31 for burrowing owl and California Ridgway's rail; c) January 15 to September 15 for other owls; and d) February 15 to September 15 for other raptors.
- 2.26 <u>Active Nest Buffers</u>. If active nests are found, the qualified biologist shall establish an appropriate buffer between the nest and active construction. If breeding clapper rails are determined to be present, activities will not occur within 700 feet of an identified calling center. If the California Ridgway rail's calling center is located within 200 feet of the Project Work Area, but is

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intervened by a major slough channel, then work may proceed within the breeding season without a buffer. The Permittee shall clearly mark the established buffer. Permittee shall maintain the buffer until the young have fledged and are foraging independently.

Prior to construction, the qualified biologist shall conduct baseline monitoring of the nest to characterize "normal" bird behavior and shall establish a buffer distance which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and shall increase the buffer if the birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman should have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active.

- 2.27 Work Within California Ridgway's Rail, California Black Rail, and SMHM Habitat. Project activities within or adjacent to habitat suitable for California Ridgway's rail, California black rail, or SMHM shall not occur within 2 hours before or after extreme high tides (6.5 feet or above).
- 2.28 <u>SMHM and shrew Vegetation Removal</u>. Permittee shall remove grassland and wetland vegetation only with non-mechanized hand tools (i.e. trowel, hoe, rake, and shovel). No motorized equipment, including weed wackers or lawn mowers, shall be used to remove this vegetation.
- 2.29 SMHM and shrew Exclusion Fence and Monitoring. When the qualified biologist (Measure 2.20) has determined that there are not any special-status species present within the Project Work Area (Measure 2.22), an exclusion fence reviewed and approved by CDFW shall be installed to prevent re-entry of individuals within the Project area. The qualified biologist shall conduct a daily inspection within the exclusion fence prior to the start of construction activities. Exclusion fencing shall be inspected for holes and gaps and repaired immediately after detection. If sensitive species are found, Project work shall cease and the qualified biologist shall contact CDFW to determine the correct course of action.
- 2.30 <u>Placement of Turbidity Curtain</u>. Permittee shall install the turbidity curtain during low tide. The Permittee shall walk the curtain from the edge of the water on the creek bank out towards the creek channel. A qualified biologist shall be present to monitor turbidity curtain installation.
- 2.31 <u>Harm to Aquatic Life Entrapment within Turbidity Curtain</u>. If aquatic life are entrapped within the turbidity curtain, the qualified biologist shall implement and oversee the capture and relocation of any aquatic life found in the

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dewatered area. Permittee shall check daily for stranded aquatic life as the water level in the dewatering area drops. Permittee shall capture and move all native fish and western pond turtles observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured native fish and wildlife shall be released immediately in the closest body of water adjacent to the work site. Efforts will be made to reduce collecting and handling stress, minimize the time that animals are held in buckets, and minimize handling stress during processing and release.

For any species listed under CESA or ESA, only a qualified biologist with the necessary permits issued by CDFW and/or NMFS or USFWS may handle and relocate listed species. The qualified biologist shall contact CDFW within 24 hours of relocation activities.

In the event that the Permittee intends to dispatch non-native fish species, Permittee shall coordinate with CDFW fisheries staff to apply for applicable permits such as a permit to destroy harmful species of fish (FG 793)

2.32 <u>Habitat Protection</u>. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete Project construction. Vegetation outside the construction corridor shall not be removed or damaged without prior consultation and approval by CDFW.

3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

3.1 <u>Mitigation Monitoring Plan (MMP)</u>. At least 30 days prior to the commencement of Project activities, the Permittee shall submit a Mitigation Monitoring Plan to CDFW for review and written approval. The MMP shall include monitoring of grass revegetation over a 1-year period and wetland monitoring for a 3-year period, commencing with the completion of revegetation activities. The MMP shall include a list of the species to be used for revegetation, success criteria (such as percent cover), monitoring, reporting (Measure 4.2 and 4.3), anticipated invasive species control, and corrective actions to be taken when success criteria are not meet.

Monitoring may occur in the late spring or early summer, after foliage has emerged. Photos from designated photo stations shall be included in the MMP.

Permittee shall not plant, seed or otherwise introduce invasive plant species within the Project area. Prohibited invasive plant species include those

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identified in the California Invasive Plant Council's inventory database, which is accessible at: http://www.cal-ipc.org/ip/inventory/weedlist.php.

- 3.2 Revegetation Timeframe. Revegetation shall occur during the same construction season as the impacts occur. Erosion control revegetation (Measure 2.17) shall occur as soon as possible after construction activities in those areas cease and no later than October 31.
- 3.3 Revegetation Remediation. If revegetation survival and/or cover requirements do not meet established goals, Permittee is responsible for replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve these requirements. Replacement plants shall be monitored with the same parameters and success criteria as original plantings/revegetation.
- 3.4 Invasive Plant Control. In conducting invasive plant control, the Permittee shall use non-chemical manual removal to the fullest extent feasible. Only herbicides registered with the California Department of Pesticide Regulation (DPR) shall be applied. Localized spot treatments such as the cut-stump method should be used, when feasible. All herbicides shall be applied in accordance with regulations set by DPR, used according to labeled instructions, and approved for use in an aquatic environment (e.g. Rodeo©). Labeled instructions for the herbicide used shall be made available to CDFW upon request. Herbicide application shall be conducted on calm days only with wind less than five (5) miles per hour to prevent airborne transfer of herbicide. Pesticide mixing sites shall be located at existing road sites outside of the stream, riparian or wetland areas. No herbicides shall be used where CESA and/or federally listed species have been documented to occur.

4. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1 <u>As-Builts</u>. Permittee shall submit as-built plans to CDFW within 45 calendar days of completion of Project construction work. The accompanying report(s) shall describe any and all deviations from the final construction drawings.
- 4.2 Construction and Revegetation Status Report. Permittee shall submit a Project construction/revegetation status report to CDFW on or before December 31 following the year of construction and planting completion. This report shall include information on construction completed and revegetation completed. The revegetation portion of this report may be postponed to February 28 due to insufficient rainfall for revegetation (Measure 3.2).

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- 4.3 Revegetation Annual Report. The Permittee shall submit an annual status report on the monitoring of revegetation to CDFW by December 31 of each year for 3 years after construction is completed. This report shall include results of revegetation monitoring such as percent survival and percent cover as well as invasive species control and corrective actions taken when success criteria were not met.
- 4.4 <u>Fish and Wildlife Relocation Record</u>. A record shall be maintained of all fish and aquatic wildlife rescued and moved during dewatering. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the Project site, and the number and species of fish and aquatic wildlife captured and relocated. The record shall be provided to CDFW within two (2) weeks of the completion of the work season or Project, whichever comes first.
- 4.5 <u>California Natural Diversity Database</u>. If any sensitive species are observed during Project surveys or at any time during Project implementation or mitigation and monitoring work, Permittee shall submit California Natural Diversity Database (CNDDB) forms to the CNDDB within five (5) working days of the sightings, and provide CDFW Region 3 with copies of the CNDDB forms and survey maps. Refer to https://www.wildlife.ca.gov/Data/CNDDB for additional information on CNDDB.

CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

To Permittee:

Evan Boyd International Disposal Corp of CA 1601 Dixon Landing Rd Milpitas, CA 95035 eboyd@republicservices.com (408)586-2281

To CDFW:

California Department of Fish and Wildlife, Bay Delta Region 2825 Cordelia Road, Suite 100, Fairfield, CA 94534 Attn: Lake and Streambed Alteration Program – Kristin Garrison Notification #1600-2018-0213-R3 kristin.garrison@wildlife.ca.gov (707)944-5534

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LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW 's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, from obtaining any other permits or authorizations that might be required under, other federal, state, or local laws or regulations before beginning the project or an activity related to it. For example, if the project causes take of a species listed as threatened or endangered under the Endangered Species Act (ESA), such take will be unlawful under the ESA absent a permit or other form of authorization from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

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This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the Fish and Game Code including, but not limited to, Fish and Game Code sections 2050 *et seq*. (threatened and endangered species), section 3503 (bird nests and eggs), section 3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal.

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Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at https://www.wildlife.ca.gov/Conservation/CEQA/Fees.

TERM

This Agreement shall expire on December 31, 2022, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

EXHIBITS

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

Exhibit A: Figure A4: Project Vicinity Map

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the Project described herein. If Permittee begins or completes a project different from the Project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC section 1602.

Environmental Program Manager		
Craig Weightman	Date	
FOR DEPARTMENT OF FISH AND WILDLIFE		
Evan Boyd	Date	
FOR INTERNATIONAL DISPOSAL CORP OF CA		
The undersigned accepts and agrees to comply with a	all provisions contained l	herein.
CONCURRENCE		
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Date emailed: November 9, 2018





 Project: Newby Island Landfill - Tidal Channel Stabilization Project	1700114	
 Project Vicinity Map	Figure: A4	
	Date: 5/7/18	



DEPARTMENT OF THE ARMY

SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

NOV 20 2018

Regulatory Division

Subject: File Number 2018-00269S



Mr. Evan Boyd Republic Services Inc. 1601 Dixon Landing Rd. Milpitas, California 95035

Dear Mr. Boyd:

This correspondence is in reference to your submittal of May 31, 2018, concerning Department of the Army (DA) authorization to implement the Newby Island Landfill Coyote Creek Channel Stabilization project. This project is located at 1601 Dixon Landing Road in the City of Milpitas, Santa Clara County, California (37.454883, -121.933044).

Work within U.S. Army Corps of Engineers' (Corps) jurisdiction will include installation of a silt curtain in the channel and stabilizing 138 linear feet of bank via construction of a riprap, woody debris, and soil bank slope with a planting bench. Work will require placement of 89.44 cubic yards of fill within 0.037 acre of Coyote Creek. All work shall be completed in accordance with the plans and drawings titled "USACE File #2018-00269, Newby Island Landfill Coyote Creek Channel Stabilization," consisting of 8 sheets, dated November 14, 2018, and provided as Enclosure 1.

Section 404 of the Clean Water Act (CWA) generally regulates the discharge of dredged or fill material below the plane of ordinary high water in non-tidal waters of the United States, below the high tide line in tidal waters of the United States, and within the lateral extent of wetlands adjacent to these waters. Section 10 of the Rivers and Harbors Act (RHA) generally regulates construction of structures and work, including excavation, dredging, and discharges of dredged or fill material occurring below the plane of mean high water in tidal waters of the United States; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States. Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide; and/or all waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce.

Based on a review of the information in your submittal, the project qualifies for authorization under Department of the Army Nationwide Permit (NWP) 13 for Bank Stabilization (82 Fed. Reg. 1860, January 6, 2017), pursuant to Section 404 of the CWA of 1972, as amended (33 U.S.C. § 1344 et seq.), and Section 10 of the Rivers and Harbors Act (RHA) of 1899, as amended (33 U.S.C. § 403 et seq.). The project must be in compliance with the terms of the

NWP cited on our website

(www.spn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_13.pdf), the general conditions of the Nationwide Permit Program

(www.spn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_GC.pdf), and the San Francisco District regional conditions

(www.spn.usace.army.mil/Portals/68/docs/regulatory/NWP/NWP17_RC.pdf). You must also be in compliance with any special conditions specified in this letter for the NWP authorization to remain valid. Non-compliance with any term or condition could result in the revocation of the NWP authorization for your project, thereby requiring you to obtain an Individual Permit from the Corps. This NWP authorization does not obviate the need to obtain other State or local approvals required by law.

This verification will remain valid until March 18, 2022, unless the NWP authorization is modified, suspended, or revoked. Activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon a NWP will remain authorized provided the activity is completed within 12 months of the date of a NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 C.F.R. § 330.4(e) and 33 C.F.R. § 330.5 (c) or (d). This verification will remain valid if, during the time period between now and March 18, 2022, the activity complies with any subsequent modification of the NWP authorization. The Chief of Engineers will periodically review NWPs and their conditions and will decide to modify, reissue, or revoke the permits. If a NWP is not modified or reissued within five years of its effective date, it automatically expires and becomes null and void. It is incumbent upon you to remain informed of any changes to the NWPs. Changes to the NWPs would be announced by Public Notice posted on our website (www.spn.usace.army.mil/Missions/Regulatory/Public-Notices.aspx). Upon completion of the

(www.spn.usace.army.mil/Missions/Regulatory/Public-Notices.aspx). Upon completion of the project and all associated mitigation requirements, you shall sign and return the Certification of Compliance, Enclosure 2, verifying that you have complied with the terms and conditions of the permit.

This authorization will not be effective until you have obtained a Section 401 water quality certification from the San Francisco Bay Regional Water Quality Control Board (RWQCB). If the RWQCB fails to act on a valid request for certification within 60 days after receipt of a complete application, the Corps will presume a waiver of water quality certification has been obtained. You shall submit a copy of the certification to the Corps prior to the commencement of work.

This authorization will not be effective until you have obtained a concurrence from the San Francisco Bay Conservation and Development Commission that your project will comply with California's Coastal Zone Management Act. If the Commission fails to act on a valid request for concurrence with your certification within six months after receipt, the Corps will presume a

concurrence has been obtained. You shall submit a copy of the concurrence to the Corps prior to the commencement of work.

General Condition 18 stipulates that project authorization under a NWP does not allow for the incidental take of any federally-listed species in the absence of a biological opinion with incidental take provisions. As the principal federal lead agency for this project, the Corps initiated consultation with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to address project related impacts to listed species, pursuant to Section 7(a) of the Endangered Species Act of 1973, as amended, 16 U.S.C. § 1531 et seq. By letter of September 19, 2018, cited in Enclosure 3, USFWS concurred with the determination that the project was not likely to adversely affect California clapper rail (*Rallus obsoletus obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*). By letter of September 12, 2018, cited in Enclosure 4, NMFS concurred with the determination that the project was not likely to adversely affect North American green sturgeon (*Acipenser medirostris*), and Central California Coast steelhead (*Oncorhynchus mykiss*), and designated critical habitat for these species.

In order to ensure compliance with this NWP authorization, the following special conditions shall be implemented:

- 1. Incidents where any individuals of steelhead or North American green strugeon appear to be injured or killed as a result of discharges of dredged or fill material into waters of the United States or structures or work in navigable waters of the United States authorized by this NWP shall be reported to NOAA Fisheries, Office of Protected Resources, at (301) 713-1401 and the Regulatory Office of the San Francisco District of the U.S. Army Corps of Engineers at (415) 503-6795. The finder should leave the plant or animal alone, make note of any circumstances likely causing the death or injury, note the location and number of individuals involved, and, if possible, take photographs. Adult animals should not be disturbed unless circumstances arise where they are obviously injured or killed by discharge exposure or some unnatural cause. The finder may be asked to carry out instructions provided by NOAA Fisheries, Office of Protected Resources, to collect specimens or take other measures to ensure that evidence intrinsic to the specimen is preserved.
- 2. The USFWS concurred with the determination that the project was not likely to adversely affect California clapper rail and salt marsh harvest mouse. The NMFS concurred with the determination that the project was not likely to adversely affect steelhead, green sturgeon, and designated critical habitat for this species. These concurrences were premised, in part, on project work restrictions and the description of the proposed action outlined in Enclosures 3 and 4, respectively. These work restrictions are incorporated as special conditions to the NWP authorization for your project to ensure unauthorized incidental take of species and loss of critical habitat

does not occur.

3. A post construction report shall be submitted 45 days after the conclusion of construction activities. The report shall document construction activities and contain as-built drawings (if different from drawings submitted with application) and include before and after photographs.

You may refer any questions on this matter to Danielle Mullen of my Regulatory staff by telephone at 415-503-6783 or by e-mail at danielle.m.mullen@usace.army.mil. All correspondence should be addressed to the Regulatory Division, South Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: http://www.spn.usace.army.mil/Missions/Regulatory.aspx

Sincerely,

Rick M. Bottoms, Ph.D.
Chief, Regulatory Division

Enclosures

Copy Furnished (w/ encls):

✓ Questa Engineering, Richmond CA (Attn. Sydney Temple)

Copy Furnished (w/ encl 1 only):

CA RWQCB, Oakland, CA