

**CALENDAR ITEM
C24**

A 10
S 2

10/14/14
W 26786
W. Hall

GENERAL LEASE – OTHER

APPLICANT:

Sonoma Land Trust

AREA, LAND TYPE, AND LOCATION:

Sovereign land in San Pablo Bay and Tolay Creek, adjacent to 2100 Highway 37, city of Petaluma, Sonoma County.

AUTHORIZED USE:

Restoration and maintenance activities, including dredging and levee breaches, to restore 955 acres of tidal marsh and 106 acres of non-tidal seasonal wetland habitat, and reestablish aquatic habitats in the San Pablo Bay area for protected species.

LEASE TERM:

20 years, beginning October 14, 2014.

CONSIDERATION:

The public use and benefit; with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest.

SPECIFIC LEASE PROVISIONS:

Liability insurance in an amount no less than \$1,000,000 per occurrence.

OTHER PERTINENT INFORMATION:

1. Applicant owns the uplands adjoining the lease premises.
2. Applicant proposes to reestablish aquatic habitats for protected species through the restoration of 955 acres of tidal marsh and 106 acres of non-tidal seasonal wetland habitat, by breaching two levees within Lease Parcels 1 and 2 on Exhibit B, and dredging a connector channel in the San Pablo Bay.

CALENDAR ITEM NO. **C24** (CONT'D)

3. The levee breaches will require the removal of approximately 88,000 cubic yards of material using an excavator or long reach excavator. Dredging the connector channel in San Pablo Bay within Lease Parcel 1 will require the removal of approximately 56,000 cubic yards of material and require the use of a hydraulic dredge or clamshell dredge. The connector channel will be approximately 2,100 feet long within Lease Parcel 1 into San Pablo Bay. All dredged material will be reused on-site to construct the restoration project elements. Construction is proposed for April through December 2015. The Applicant is applying for a General Lease – Other.
4. A Joint Document (JD) EIR/EIS, State Clearinghouse No. 2007102037, was prepared for this project by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service and certified on June 22, 2012. The California State Lands Commission staff has reviewed such document and Mitigation Monitoring Program prepared pursuant to the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21081.6) and adopted by the lead agency.

Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) are contained in Exhibit D, attached hereto.

5. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

EXHIBITS:

- A. Land Description
- B. Site and Location Map
- C. Mitigation and Monitoring Program
- D. CEQA Findings

APPROVAL OBTAINED:

U.S. Army Corps of Engineers
California Department of Fish and Wildlife
San Francisco Bay Regional Water Quality Control Board
San Francisco Bay Conservation and Development Commission
U.S. Fish and Wildlife Service
NOAA National Marine Fisheries Service
Sonoma County Grading Permit

CALENDAR ITEM NO. **C24** (CONT'D)

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that an EIR/EIS, State Clearinghouse No. 2007102037, was prepared for this Project by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service and certified on June 22, 2012, and that the Commission has reviewed and considered the information contained therein.

Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

Adopt the Findings, made in conformance with California Code of Regulations, Title 14, sections 15091 and 15096, subdivision (h), as contained in Exhibit D, attached hereto.

Determine that the Project, as approved, will not have a significant effect on the environment.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

Authorize issuance of a General Lease – Other to the Sonoma Land Trust, beginning October 14, 2014, for a term of 20 years, for restoration and maintenance activities including dredging and levee breaches, to restore 955 acres of tidal marsh and 106 acres of non-tidal seasonal wetland habitat, and reestablish aquatic habitats in the San Pablo Bay and Tolay Creek for protected species, as described in Exhibit A and shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof; no consideration will be charged as the project will result in a public benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest; and liability insurance in an amount no less than \$1,000,000 per occurrence.

EXHIBIT A

W 26786

LAND DESCRIPTION

Two parcels of tide and submerged land situate in the beds of San Pablo Bay and Tolay Creek, lying adjacent to Swamp and Overflowed Land Surveys 34, 41 & 61 patented March 24, 1876 County of Sonoma, State of California and more particularly described as follows:

PARCEL 1

BEGINNING at a point that bears North 75° 56' 39" East 5910.12 feet from NGS monument "PETALUMA CREEK N TRANSM TOWER" (PID JT2350); thence from said point of beginning in a clockwise direction through the following sixteen (16) courses:

- 1) South 62° 13' 01" East 216.41 feet;
- 2) South 88° 54' 55" East 73.29 feet;
- 3) North 62° 39' 29" East 247.65 feet;
- 4) South 01° 23' 00" West 151.77 feet;
- 5) South 29° 01' 29" West 92.31 feet;
- 6) South 01° 31' 20" West 190.80 feet;
- 7) South 31° 44' 33" West 149.30 feet;
- 8) South 01° 50' 10" West 1526.92 feet;
- 9) South 05° 24' 30" West 87.97 feet;
- 10) North 87° 21' 39" West 226.24 feet;
- 11) North 01° 21' 19" West 107.16 feet;
- 12) North 01° 25' 33" East 1426.28 feet;
- 13) North 34° 32' 51" West 130.69 feet;
- 14) North 01° 31' 49" East 288.28 feet;
- 15) North 32° 34' 38" West 74.03 feet;
- 16) North 01° 28' 32" East 150.84 feet to the POINT OF BEGINNING.

EXCEPTING THEREFROM any portion lying landward of the ordinary high water mark of said San Pablo Bay.

PARCEL 2

BEGINNING at a point that bears North 67° 41' 25" East 11786.17 feet from NGS monument "PETALUMA CREEK N TRANSM TOWER"; thence from said point of beginning in a clockwise direction through the following eight (8) courses:

- 1) South 25° 43' 01" East 113.68 feet;
- 2) South 06° 10' 20" West 763.85 feet;
- 3) North 84° 09' 58" West 184.20 feet;
- 4) North 38° 35' 25" East 38.78 feet;
- 5) North 12° 47' 10" East 205.80 feet;
- 6) North 11° 00' 44" East 197.18 feet;
- 7) North 04° 56' 21" East 302.10 feet;
- 8) North 35° 05' 51" East 143.71 feet to the POINT OF BEGINNING.

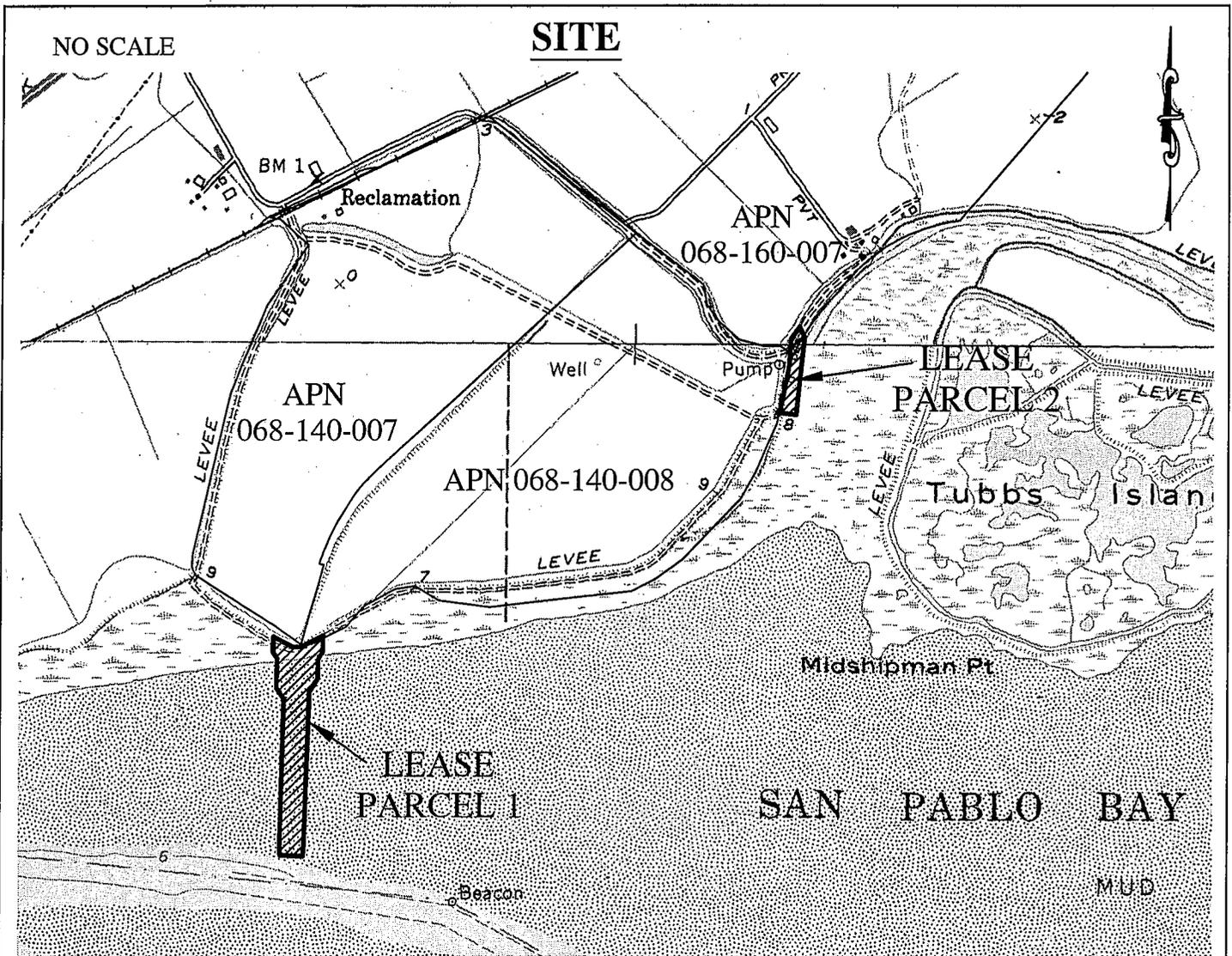
EXCEPTING THEREFROM any portion lying landward of the ordinary high water mark of the right bank of said Tolay Creek.

BASIS OF BEARINGS for this description is the California Coordinate System of 1983, Zone 2.

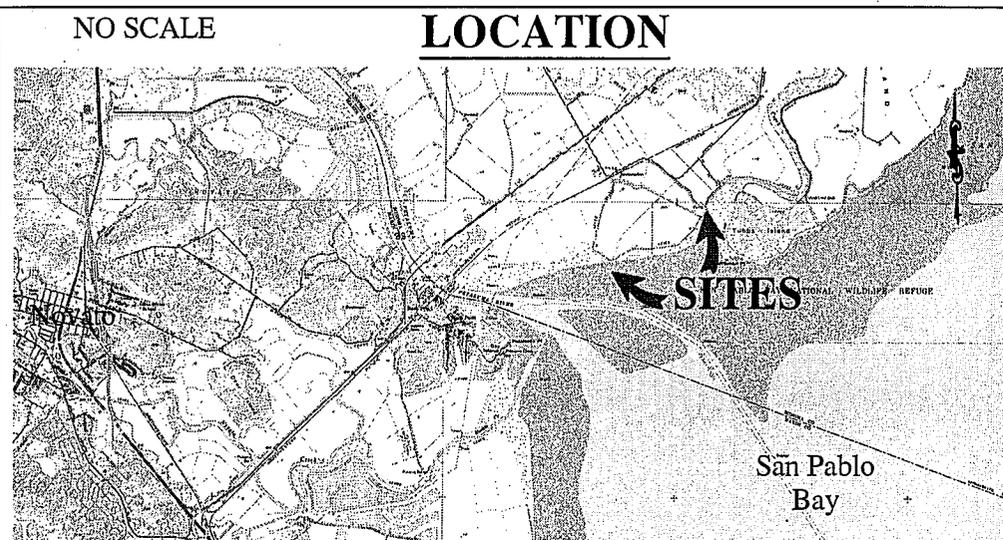
END OF DESCRIPTION

Prepared 08/20/14 by the California State Lands Commission Boundary Unit





2100 HIGHWAY 37, PETALUMA



MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Exhibit B
 W 26786
 SONOMA LAND TRUST
 APNs: 068-140-007, 008 &
 068-160-007
 GENERAL LEASE -
 OTHER
 SONOMA COUNTY



EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM
SEARS POINT
WETLAND AND WATERSHED RESTORATION PROJECT
(State Clearinghouse No.2007102037)

The California State Lands Commission (Commission) is a responsible agency under the California Environmental Quality Act (CEQA) for the Sears Point Wetland and Watershed Restoration Project (Project). The CEQA lead agency for the Project is California Department of Fish and Wildlife (formally the California Department of Fish and Game).

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on Commission lands. The purpose of a MMP is to discuss feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration. State CEQA Guidelines section 15097, subdivision (a), states in part:¹

In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

The lead agency has adopted a MMP for the whole of the Project (see Exhibit C, Attachment C-1) and remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below.

¹ The State CEQA Guidelines are found at California Code of Regulations, Title 14, section 15000 et seq.

Table C-1. Project Impacts and Applicable Mitigation Measures.

Potential Impact	Mitigation Measure (MM) ²
<i>Hydrology and Water Quality</i>	
WQ-1. Degradation of Surface Water and Sediment Quality due to Release of Pollutants during Construction	WQ-MM-1. Implement Water Quality Control Measures for Project Construction.
WQ-2. Degradation of Surface Water and Sediment Quality due to Increased Methyl Mercury Formation	WQ-MM-2. Develop and Implement a Methyl Mercury Adaptive Management Plan.
WQ-5. Potential Turbidity Impacts due to Dredging and Placement of Dredged Material	WQ-MM-3. Implement Water Quality Control Measures for Project Dredging.
<i>Public Health and Safety</i>	
PH-1. Increased Potential of Mosquito Breeding Habitat	PH-MM-1. Coordinate Water Management, Restoration Design, Construction, and Operation Activities with MSMVCD.
<i>Biological Resources</i>	
BIO-3. Loss of Tidal Salt Marsh	BIO-MM-1. Ensure Establishment of Tidal Salt Marsh Habitat within 5 Years of Project Completion.
BIO-4. Loss of Special-Status Plant Populations	BIO-MM-2a. Survey for Special-Status Plants.
	BIO-MM-2b. Replace Special-Status Plants.
BIO-5. Introduction or Spread of Noxious Weeds during Construction, Operations and Maintenance.	BIO-MM-3a. Prevent Spread of Perennial Pepperweed and Other Invasive Weeds to Uninfested Areas.
	BIO-MM-3b. Monitor Restoration Sites for and Control Infestation by Invasive Non-Native Plants.
BIO-6. Potential for Construction- Related Impacts to Salt Marsh Harvest Mice	BIO-MM-4. Remove Salt Marsh Harvest Mouse Habitat and Place Barrier Fencing in the Immediate Vicinity of Operating Equipment.
BIO-7. Potential for Construction- Related Impacts to California Clapper Rails and California Black Rails	BIO-MM-5. Avoid Operation of Equipment in the Outboard Coastal Tidal Marsh During the Breeding Period of the California Clapper Rail and California Black Rail.
BIO-9. Non-Special-Status Birds	BIO-MM-7. Avoid Construction during the Nesting Season or Conduct Pre-Construction Nesting Bird Survey and Avoid and Protect Active Nests.
BIO-11. Potential Loss of California Red-	BIO-MM-9. Minimize and Avoid Impacts to

² See Attachment C-1 for the full text of each MM taken from the MMP adopted by the CEQA lead agency.

Potential Impact	Mitigation Measure (MM) ²
Legged Frog Individuals	California Red-Legged Frog.
BIO-14. Potential Impacts to Northwestern Pond Turtle	BIO-MM-10. Conduct Preconstruction Survey for Northwestern Pond Turtle and Construct Exclusion Fencing, if Needed.
BIO-16. Potential for Construction- Related Water Quality Effects on Special-Status Fish Species	See WQ-MM-1, WQ-MM-3
BIO-17. Potential for Construction- Related Mortality of Special- Status Fish Species	BIO-MM-12. Avoid Construction in Tidal Aquatic Habitats when Rearing Salmonids and Longfin Smelt could be Present; Utilize Silt Curtains for Dredging to Minimize Entrainment.
<i>Hazardous Substances and Waste</i>	
HAZ-1. Accidental Release of Fuels and Lubricants during Construction	HAZ-MM-1. Prepare and Implement a Spill Prevention, Control, and Countermeasure Program for Construction Activities.
HAZ-4. Potential Exposure of Humans, Plants, or Wildlife to Hazardous Chemicals Contained in Dredged Material - Dredging and Material Placements and Activities	HAZ-MM-4. Sampling and Reuse/Disposal of Dredged Materials Based on DMMO Protocols.
<i>Air Quality</i>	
AQ-1. Increase in Criteria Pollutant Emissions as a result of Construction	AQ-MM-1. Implement Bay Area Air Quality Management District (BAAQMD) best management practices (BMPs) to Reduce Emissions of PM10.
<i>Noise</i>	
N-2. Permanent Increases in Ambient Noise Levels Following Construction	N-MM-1. Design Facility to Reduce Noise Levels.
<i>Cultural Resources</i>	
CR-1. Damage or Destruction of Archaeological Resources	CR-MM-1a. Conduct Pre- Construction Cultural Resources Surveys and Required Consultation for any Areas that Have Not Previously been Surveyed.
	CR-MM-1b. Stop Work if Buried Cultural Resources are Discovered Inadvertently.
	CR-MM-1c. Stop Work if Human Remains are Encountered during Construction Activities.
<i>Environmental Justice</i>	
EJ-1. Temporary or Permanent Effects on Minority or Low- Income Groups in the Project Vicinity	See HAZ-MM-5, WQ-MM-1, WQ-MM-2, and WQ-MM-3 (above).

ATTACHMENT C-1

Mitigation Monitoring and Reporting Program adopted by the California Department of Fish and Wildlife

Appendix G

Mitigation Monitoring and Reporting Program

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
GEOLOGY		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
GEO-1	Potential Damage to Proposed Facilities Resulting from Strong Seismic Ground Shaking, Liquefaction, or Other Types of Seismic-Related Ground Failure	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
GEO-2	Settlement of Proposed Facilities as a Result of Static Fill Loads on Compressible Substrate Materials	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
GEO-3	Potential for Increased Exposure of Persons or Structures to Landslide Hazards	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
GEO-4	Potential Short-Term Increase in Erosion and Sedimentation Rates during Construction	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
GEO-5	Contribution to Substantial Loss of Topsoil	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
GEO-6	Potential Damage to Proposed Facilities Resulting from Location on Expansive Soil	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
GEO-7	Potential for Proposed Levee to Damage Adjacent Facilities	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
GEO-8	Damage to Paleontological Resources	Proposed Project	S	GEO-MM-1	Conduct Preconstruction Survey, Salvage, and Protection	Before site preparation (including vegetation clearing) and project earthwork begin within upland portions of the project (i.e., other than diked baylands), the project proponent will retain a qualified professional paleontologist as defined by the SVP Conformable Impact Mitigation Guidelines Committee (1995) to conduct a pedestrian surface survey in areas where project earthwork would affect sensitive paleontological geologic units. If necessary, a paleontological salvage operation will also be conducted. The goal of the salvage operation, if needed, will be to ensure that any paleontological materials exposed at the surface are recovered and properly prepared and curated, or protected from damage using exclusion fencing or other appropriate means. The completed survey will be submitted to SLT. Protection will be designed and installed in consultation with SLT and the project engineering consultant to ensure that it is appropriate and effective but does not unduly impede construction activities.	LTS	SLT	Before constr. (Pre-constr. survey)	Before constr. – ensure survey is completed. During constr. – ensure compliance with protection measures
		Full Tidal Alternative	S	GEO-MM-2	Notify a Qualified Professional Paleontologist if Remains are Found during Ground-Disturbing Activities	SLT and its contractors shall notify a qualified professional paleontologist as defined by the SVP Conformable Impact Mitigation Guidelines Committee (1995) if sensitive paleontological remains are found during construction in uplands areas and construction activities shall cease immediately. The paleontologist will assess the nature and importance of the find and recommend appropriate treatment, consistent with the SVP's 1995 guidelines and all other applicable standards of care. If the paleontologist identifies a	LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						need, a state-licensed professional geologist (California PG) will also be retained to assist with evaluating the potential for project work to further disturb the geologic units in which the find was made. Work will not resume in the area of the find until the find has been assessed by the paleontologist and any treatment identified as necessary has been implemented. However, with the paleontologist's approval, work may resume on other portions of the site during evaluation and treatment of the find. Depending on the nature of the find, site-specific geologic conditions, and the project activities planned for the site, treatment may include paleontological monitoring, preparation, and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, preparation of a report for publication describing the finds, or other approaches developed for the site. SLT will be responsible for ensuring that the paleontologist's recommendations regarding treatment and reporting are implemented.				
HYDROLOGY		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
HYD-1	Potential Impacts from Tidal Flooding	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
HYD-2	Potential Erosion and Sedimentation Impacts in the Tidal Basin	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
HYD-3	Potential Changes in Tolay Creek Flood Risk	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
HYD-4	Consistency with Flood Zoning	Proposed Project	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	No Impact							
HYD-5	Modification to San Pablo Bay Tidal Circulation	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
HYD-6	Modification to Tolay Creek Morphology and Sedimentation Processes	Proposed Project	LTS	Not Required	Not Required	N/A	N/A	SLT	N/A	N/A
		Full Tidal Alternative	S							
HYD-7	Modification to San Pablo Bay Morphology and Sedimentation Processes	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal	LTS							

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
		Alternative								
HYD-8	Impact of Sea Level Rise on Marsh Formation and Levee Protection	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
WATER QUALITY		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
WQ-1	Degradation of Surface Water and Sediment Quality due to Release of Pollutants during Construction	Proposed Project	S	WQ-MM-1	Implement Water Quality Control Measures for Project Construction	SLT, USFWS or CDFG as successor property owners, and its contractors shall comply with conditions of construction permits from regulatory agencies, including the RWQCB, to protect beneficial uses of water resources. RWQCB permit conditions require protection of water and sediment quality to the maximum extent practicable that is economically feasible and may include water quality monitoring surrounding the construction site, if appropriate. Compliance with permit conditions would adequately prevent degradation of water and sediment quality due to release of construction-related pollutants.	LTS	SLT	During constr.	As required by permit
		Full Tidal Alternative	S				LTS			
WQ-2	Degradation of Surface Water and Sediment Quality due to Increased Methyl Mercury Formation	Proposed Project	S	WQ-MM-2	Develop and Implement a Methyl Mercury Adaptive Management Plan	<p>Due to the uncertainties regarding mercury methylation and bioaccumulation processes, potential methyl mercury production at the project site is best managed adaptively. SLT its successors in interest (e.g. CDFG and USFWS) shall develop and implement an adaptive management plan to address methyl mercury production and accumulation in the restoration site. The methyl mercury adaptive management plan shall be developed in collaboration with other agencies with jurisdiction over contaminants in the Bay, and shall include review by a Technical Advisory Committee or Group; preferably an existing group that includes representatives from multiple agencies and projects, such as the South Bay Salt Pond Project Technical Advisory Committee.</p> <p>The methyl mercury adaptive management plan shall include a methyl mercury monitoring plan as well as triggers for further action. To evaluate the potential effects of the Proposed Project on mercury in biota, methyl mercury monitoring shall focus on biota, with an emphasis on resident sentinel species, preferably biosentinel fish. The proposed monitoring shall be coordinated with other methyl mercury biological monitoring conducted as part of the Regional Monitoring Program (RMP), and any other methyl mercury monitoring efforts that may be implemented in the North Bay during the designated monitoring period for the Proposed Project. The methyl mercury monitoring plan shall be developed in more detail during the permitting phase, to ensure that it meets resource and regulatory agency needs. The monitoring effort may be similar to that included in the example monitoring plan in Appendix D.</p> <p>The goal of the adaptive management plan is to create a framework to review monitoring results and to develop corrective actions, in coordination with a technical advisory committee, based both on the best available science and feasibility to help ensure that tidal restoration at the Sears Point site does not substantially increase the risk of bioaccumulation for fish and wildlife species and does not substantially increase the risks related to human consumption of fish from San Pablo Bay or Tolay Creek. Physical changes that could be made to reduce methyl mercury production, if needed, could include change in water inundation management and vegetation conditions (Brostoff 2007 and Best, Ely and Team 2010).</p> <p>The plan should be developed in consultation with the responsible regulatory agencies implementing and permitting other wetland restoration projects in the Bay (RWQCB, BCDC, Corps, NMFS, USFWS, federal EPA, CDFG, etc.), potentially including the Hamilton Wetland Restoration Project and the South</p>	LTS	CDFG	Post-constr.	Verify that plan is prepared. On-going monitoring as specified in the plan
		Full Tidal Alternative	S				LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						<p>Bay Salt Pond Restoration Project (which has an Adaptive Management Plan that includes specific measures on methyl mercury). Staff of these agencies should be part of the adaptive management team to guide development of the plan; determine the duration, frequency of monitoring, constituents to be monitored, and monitoring protocols; and develop corrective actions as needed to minimize the adverse effects of methyl mercury.</p> <p>The methyl mercury adaptive management plan shall be modified as necessary to reflect increased understanding of mercury cycling in San Francisco Bay.</p>				
WQ-3	Degradation of Groundwater Quality	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
WQ-4	Changes in Dissolved Oxygen Concentration in Receiving Waters	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
WQ-5	Potential Turbidity Impacts due to Dredging and Placement of Dredged Material	Proposed Project	S	WQ-MM-3	Implement Water Quality Control Measures for Project Dredging	<p>SLT, CDFG and/or USFWS as successor owners, and its contractors shall comply with conditions of construction permits from regulatory agencies, including the USACE and RWQCB, to protect beneficial uses of water resources. USACE and RWQCB permit conditions require protection of water and sediment quality to the maximum extent practicable that is economically feasible and may include water quality monitoring surrounding the construction site, if appropriate. Compliance with permit conditions would adequately prevent degradation of water and sediment quality due to project dredging.</p> <p>SLT and its contractors shall ensure to the extent practicable that the turbidity (as measured in NTUs) shall not exceed background levels by more than the 10 percent outside the Project Boundary when background levels are greater than or equal to 50 NTU, to the extent practicable. The Project Boundary for the dredged areas is to be defined by a silt curtain to be required by SLT of its contractors. In the event a silt curtain is not used to control turbidity, the Project Boundary shall be defined as the daily limit of dredging or excavation of breaches and connections in any area where such work occurs. If turbidity does increase above the exceedance level, SLT shall follow remedial measures required by RWQCB.</p>	LTS	SLT during construction; CDFG and USFWS for Breaches 3 and 4, if required	During dredging	As required by permit
		Full Tidal Alternative	S				LTS			
WQ-6	Degradation of Water Quality due to Inundation of Formerly Drained Wetlands	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
WQ-7	Degradation of Water Quality due to Potential Leaching of Contaminants from Dredged Material	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
WQ-8	Degradation of Water Quality due to Contaminated Soils in Proposed Tidal Basin	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
WQ-9	Degradation of Water Quality due to Residual Herbicides in	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
	Proposed Tidal Basin	Full Tidal Alternative	LTS							
WQ-10	Potential for Changes in Salinity Levels within Tolay Creek	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
PUBLIC HEALTH		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
PH-1	Increased Potential of Mosquito Breeding Habitat	Proposed Project	S	PH-MM-1	Coordinate Water Management, Restoration Design, Construction, and Operation Activities with MSMVCD	<p>The following mitigation measure ensures that suitable habitat for mosquito production remains controlled and properly regulated throughout the design, construction, and implementation of the Project.</p> <p>SLT or its successors in interest shall continue to consult and coordinate with the MSMVCD during the design, construction, and operational phases of the Project. Consultation and coordination with MSMVCD to develop and implement strategies to reduce site suitability for mosquito breeding or control breeding populations may include the following actions:</p> <ul style="list-style-type: none"> ■ Continue to consult with MSMVCD during project design to incorporate design elements of tidal wetland habitats to reduce the mosquito production potential of the project. ■ Mitigate the mosquito potential of high marsh pans by designing sizes, shapes, and orientation according to prevailing winds in order to maximize the potential for wind-wave turbulence of the flooded water surface. Minimal pan sizes of several thousand square feet, and exposure to westerly winds along the long axis of the pans, are expected to minimize production of standing saltwater mosquitoes. Rapid desiccation and hypersalinity of the high marsh pan following June-July spring high tides may also restrict floodwater mosquito production, relative to more gradually drained and dried pans of intertidal marsh plains. ■ Size subtidal channels and ponds to ensure sufficient wind-wave turbulence to inhibit mosquito breeding. ■ Consult with MSMVCD to develop and implement feasible measures to reduce the likelihood of ponding of surface water on the project area during the construction period. ■ Permit MSMVCD to have access to the project area to monitor or control mosquito populations. Control activities on Refuge lands shall be consistent with the Refuge's Mosquito Management Plan. ■ Regularly consult with MSMVCD to identify mosquito management problems, mosquito monitoring and abatement procedures, and opportunities to adjust water management practices in nontidal wetlands to reduce mosquito production during problem periods. ■ Consult with MSMVCD to identify annual mosquitofish stocking requirements in nontidal wetlands. ■ Consult with MSMVCD to identify opportunities for the Sonoma Land Trust to share costs or otherwise participate in implementing mosquito abatement programs if it is necessary for MSMVCD to increase mosquito monitoring and control 	LTS	SLT, DFG, USFWS	Pre-, During, and Post-Constr.	As needed

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						<p>programs beyond pre-project levels.</p> <ul style="list-style-type: none"> ■ Include non-chemical control methods to minimize mosquito production to the maximum extent possible. ■ Apply periodic air and ground applications of mosquito larvicides such as Golden Bear Oil 1111, BTI (<i>Bacillus thurigiensis</i> var. <i>israelensis</i>), Agnique, methoprene growth regulators, or other EPA-approved pesticides, as needed, and as allowed on USFWS Refuge property. ■ Establish permanent predator populations by inoculating wetland areas with predators captured in adjacent wetlands and from other sources. ■ Provide tools to manage water levels in non-tidal areas, such as weir boards. ■ Consult with MSMVCD to perform ongoing monitoring of larval and adult mosquito populations, water quality, and vegetation density. ■ Implement control and management measures under the authority of MSMVCD. 				
		Full Tidal Alternative	LTS	Not Required	N/A	N/A	LTS	N/A	N/A	N/A
PH-2	Risk to the Public Resulting from Inadequate Access for Emergency Response Service	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
BIOLOGY		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
BIO-1	Loss of Agricultural Lands	Proposed Project	Beneficial	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	Beneficial							
BIO-2	Loss of Seasonal Wetlands (including Vernal Pools, Seasonally Saturated Annual Grasslands and Farmed Seasonal Wetlands)	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
BIO-3	Loss of Tidal Salt Marsh	Proposed Project	S	BIO-MM-1	Ensure Establishment of Tidal Salt Marsh Habitat within 5 Years of Project Completion	SLT or USFWS and CDFG as successor property owners shall monitor the restoration site following the completion to ensure that, at an absolute minimum, impacted tidal salt marsh habitat is replaced at a 3:1 ratio within 5 years of completion of the Proposed Project. If SLT conducts the monitoring, SLT shall report to USFWS and CDFG on the status of monitoring once a year during the 5 years following project completion. Once achieved, SLT shall notify USFWS and CDFG that the compensation ratio has been satisfied. If the required ratio is not achieved within the first 5 years following project completion, SLT shall consult with USFWS and CDFG to determine the causes for the delay in tidal marsh development, and shall work with USFWS and CDFG to develop and implement appropriate adaptive management activities.	LTS	SLT	Post-constr.	Annually until 15 acres of replacement tidal marsh habitat are established, or to up 5 years post breach, whichever is less
		Full Tidal Alternative	S				LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
BIO-4	Loss of Special-Status Plant Populations	Proposed Project	S	BIO-MM-2a	Survey for Special Status Plants	<p>Special-status plant surveys will be conducted prior to initiating construction. The purpose of these surveys shall be to verify that the locations of special-status plants identified in previous surveys are extant, identify any new special-status plant occurrences, and cover any portions of the project area not previously identified. The extent of mitigation for the direct loss of or indirect impacts on special-status plants shall be based on these survey results. Locations of special-status plants in proposed construction areas will be recorded using a global positioning system (GPS) unit and flagged. Surveys shall be timed so that plant surveys occur during the flowering periods of the potential species of interest.</p> <p>If initial screening by a qualified biologist identifies the potential for special-status plant species to be directly or indirectly affected by a work in a specific project area, the biologist will determine appropriate protective measures to minimize the impact to the plant species. These measures may include, among others, establishing an adequate buffer area to exclude activities that would directly remove or alter an identified special-status plant population or result in indirect adverse effects on the species' habitat, gathering seed, or relocating individual specimens. Any established buffer areas shall be clearly marked by a qualified biologist to prevent encroachment by construction vehicles and personnel. The buffer zone established by the fencing will be marked by a sign stating:</p> <p style="text-align: center;"><i>This is habitat of [the special-status species being protected], a [identify the species' status] plant species, and must not be disturbed. This species is protected by [the Endangered Species Act of 1973, as amended/California Endangered Species Act/California Native Plant Protection Act].</i></p> <p>Violators are subject to prosecution, fines, and imprisonment. No construction activity, including grading, will be allowed until this condition is satisfied. No grading, clearing, storage of equipment or machinery, or other disturbance or activity will occur until all buffer areas have been marked by the qualified biologist.</p>	LTS	SLT	Pre-constr.	Flowering periods of special status plant species
		Full Tidal Alternative	S				BIO-MM-2b			
BIO-5	Introduction or Spread of Noxious Weeds during Construction, Operations and Maintenance.	Proposed Project	S	BIO-MM-3a	Prevent Spread of Perennial Pepperweed and Other Invasive Weeds to Uninfested Areas	A qualified botanist will conduct a non-native plant assessment of areas subject to construction activities and will recommend specific measures to control spread of non-native species. Measures may include the establishment of wash stations for construction vehicles and equipment to clean tires of weed seeds and other propagules before they are moved offsite, and the development of an herbicide spray program to destroy perennial pepperweed or other invasive weed infestations prior to construction.	LTS	SLT	Pre-constr., during constr.	Monitor contractor compliance during constr.
		Full Tidal Alternative	S	BIO-MM-3b	Monitor Restoration Sites for and Control Infestation by Invasive Non-Native Plants	Restoration areas will be monitored for infestation of invasive plants, such as non-native cordgrasses, perennial pepperweed, stinkwort, and/or other potentially invasive species. All infestations occurring within wetland habitats will be controlled and removed to the extent feasible. Also, a long-term monitoring plan will be developed and implemented by USFWS and DFG.	LTS			
BIO-6	Potential for Construction-Related Impacts to Salt Marsh	Proposed Project	S	BIO-MM-4	Remove Salt Marsh Harvest Mouse Habitat	The salt marsh harvest mouse is a fully protected, listed state species and a listed federal species. A Biological Opinion (BO), as described above under	LTS	SLT	Pre-constr., during constr.	As-needed to ensure contractor

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
	Harvest Mice	Full Tidal Alternative	S		and Place Barrier Fencing in the Immediate Vicinity of Operating Equipment	<p>the federal ESA, must be obtained from the USFWS, through preparation of a Biological Assessment (BA) and a Section 7 consultation prior to the start of restoration activities. SLT will consult with USFWS and CDFG to evaluate appropriate methods for avoiding construction-related mortality of salt marsh harvest mice. Measures to avoid impacts to salt marsh harvest mice may include the following:</p> <ul style="list-style-type: none"> ■ systematic removal of pickleweed habitat to eliminate any potential habitat and to aid visual location of the species if they have not already passively relocated out of the construction zone (pickleweed in tidal marshes is habitat for salt marsh harvest mice) and ■ subsequent placement of a 3-foot or greater barrier fence in which the bottom will be buried 4 inches or more below grade. The fence will be placed 20 feet outside the boundaries of the construction areas in and adjacent to coastal salt marsh habitat to prevent harvest mice from entering the construction area. 				compliance
BIO-7	Potential for Construction-Related Impacts to California Clapper Rails and California Black Rails	Proposed Project	S	BIO-MM-5	Avoid Operation of Equipment in the Outboard Coastal Tidal Marsh During the Breeding Period of the California Clapper Rail and California Black Rail	<p>Because California clapper rails and California black rails are known to occur adjacent to the Project site and restoration activities will occur in suitable habitat areas, a Biological Opinion (BO), as described above under the federal ESA, must be obtained from the USFWS, through preparation of a Biological Assessment (BA) and a Section 7 consultation prior to the start of restoration activities. Measures to avoid and minimize impacts to California clapper rails and California black rails may include the following:</p> <p>To minimize or avoid the loss of individual rails, activities within or adjacent to tidal marsh areas will be avoided during the rail breeding season from February 1 through August 31 each year unless surveys are conducted to determine if rail locations and rail territories can be avoided, or the marsh is determined to be unsuitable rail breeding habitat by a qualified biologist. If breeding rails are determined to be present, activities will not occur within 700 feet, or greater, if a biologist determines potential impacts. If the intervening distance across a major slough channel or across a substantial barrier between the clapper rail calling center and any activity area is greater than 200 feet, then it may proceed at that location within the breeding season if a biologist determines the distance is sufficient and there are no impacts on rail behavior. If rails are located, SLT will consult with USFWS and CDFG to determine what, if any, additional mitigation measures may be required to allow construction to proceed.</p>	LTS	SLT	Pre-constr.	Pre-constr. survey
		Full Tidal Alternative	S				LTS		During constr.	As-needed to ensure contractor compliance
BIO-8	Construction-Related Impacts to Burrowing Owl	Proposed Project	S	BIO-MM-6	Avoid and Protect Burrowing Owls and Compensate for Habitat Loss	<p>Pre-construction nesting surveys for burrowing owls shall be completed in conformance with CDFG guidelines prior to the start of construction within suitable habitat. These surveys shall take place from one hour before to two hours after sunrise, as well as two hours before to one hour after sunset. Surveys shall be conducted on multiple days during each of the above mentioned seasons. As burrowing owls were documented during wintering or breeding seasons, additional surveys shall be conducted prior to construction to identify occupied burrows within the Proposed Project's impact area.</p> <p>Surveyed areas shall include all potential habitat located within 150 meters of the Proposed Project's footprint and staging areas. A 150-meter buffer zone shall be surveyed to identify burrows and owls outside of the Proposed Project area that may have impacts by the Proposed Project construction activities.</p>	LTS	SLT	Pre-constr.; during constr.; post constr., if needed	Survey pre-constr.; Ensure contractor compliance during constr.; Monitor post-constr. relocation success, if needed
		Full Tidal Alternative	S				LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						<p>A report on the Proposed Project's survey results shall be prepared and submitted to CDFG staff according to the guidelines identified in the CDFG "Staff Report on Burrowing Owl Mitigation" (1995). If no burrowing owls are located during these surveys, no additional action will be warranted. However, if breeding or resident owls are located on, or immediately adjacent to, the site, the following measures shall be implemented:</p> <ul style="list-style-type: none"> ■ No burrowing owls shall be evicted from burrows. A 250-foot buffer, within which no new activity shall be permissible, shall be maintained between Project activities and nesting burrowing owls. This protected area would remain in effect until August 31, or at CDFG's discretion and based upon monitoring evidence, until the young owls are foraging independently; ■ No disturbance should occur within 50 meters of occupied burrows during the non-breeding season (September 1 through January 31) or within 75 meters of occupied burrows during the breeding season (February 1 through August 31); and ■ If accidental take (disturbance, injury, or death of owls) occurs, CDFG shall be notified immediately. ■ If burrowing owls occupy the Project site and avoiding construction in occupied areas is not feasible, then habitat compensation at other on-site mitigation lands shall be implemented. To off-set the loss of any foraging and/or burrow habitat on the project site, all suitable habitat which will be impacted shall be replaced acre for acre with suitable, occupied habitat at an appropriate location. Not less than 6.5 acres of foraging habitat per breeding pair or unpaired resident bird shall be acquired and permanently protected. The protected lands should be occupied burrowing owl habitat and at a location acceptable to CDFG. The site shall provide for the long-term management and monitoring of the species in addition to permanent protection either through a Conservation Easement or transfer of fee title to a CDFG-approved entity. As part of an agreement with CDFG, SLT may secure the performance of its mitigation duties by providing CDFG with security in the form of funds that would: ■ Allow for the preservation of Habitat Management lands at a rate of 6.5 acres per pair of owls or individual owl; ■ Provide initial protection and enhancement activities on the Habitat Management lands, potentially including but not limited to such measures as fencing, trash clean-up, artificial burrow creation, grazing or mowing, and any habitat restoration deemed necessary by CDFG; ■ Establish an endowment for the long-term management of the Habitat Management lands; and ■ Reimburse CDFG for reasonable expenses incurred as a result of the approval and implementation of this agreement. 				
BIO-9	Construction-Related Impacts to Nesting Special-Status and	Proposed Project	S	BIO-MM-7	Avoid Construction during the Nesting	To avoid removing or disturbing any active white-tailed kite, northern harrier, short-eared owl, tricolored blackbird, San Pablo song sparrow, and saltmarsh	LTS	SLT	Before construction,	Verify that survey is conducted if

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
	Non-Special-Status Birds	Full Tidal Alternative	S		Season or Conduct Pre-Construction Nesting Bird Survey and Avoid and Protect Active Nests	<p>common yellowthroat nests or other non-special status migratory bird nests, restoration construction activities shall be conducted during the non-breeding season (generally September 1 through January 30) for these species to the degree feasible.</p> <p>If construction activities cannot be avoided during the nesting season (generally between February 1 and August 31), and appropriate nesting substrates are identified for special-status species and other migratory bird species, a preconstruction survey will be conducted by a qualified biologist to determine if there are active nests onsite. The survey will be conducted a minimum of three separate days during the 14 days prior to construction. The survey area shall include all areas within 300 feet of project activities, including off-site areas that may be affected by project activities. If the biologist determines that the area surveyed does not contain any active nests, then construction activities can commence without any further mitigation. If active nests are found, CDFG will provide and SLT shall implement specific guidance on the types of activities and necessary buffer zones that may be required. If more than 14 days pass between the survey dates and the initiation of construction, another survey will be conducted. Nest protection buffers and other measures shall remain in place until all young have fledged. If a lapse in project-related work of 15 days or longer occurs, another focused survey and if required, consultation with CDFG, shall be conducted before project work is reinitiated.</p>	LTS		during constr.	required. Verify contractor compliance with protection provisions
BIO-10	Potential Disturbance or Loss of Bats or their Roost Sites	Proposed Project	S	BIO-MM-8	Conduct Preconstruction Surveys for Special-Status Bats and Avoid Construction Activities during the Breeding Season	<p>A qualified biologist shall conduct an initial visual survey of suitable roosting habitat to look for evidence of use by bats. The biologist shall determine if the structure is being used as a day, night, and/or maternal roost. If roosting colonies are found within the Action area, roosting structures should be retained, and construction activities should not occur within 500 feet of the roost(s), or as determined by CDFG.</p> <p>If roosting structures cannot be retained and avoided, a qualified biologist shall conduct two nighttime emergence surveys to include acoustic and visual data collection for bats during the nursery season (generally April through August) before construction begins to determine what species are present and if the roosts are maternity roosts. One survey should be conducted during late spring to early summer and the other in mid-summer to account for the possibility that the site is used by different species at different times during the breeding season.</p> <p>If bat maternity roosts are located or are presumed present, work should be avoided, until after migration in late fall (October) when bats are less likely to be roosting; once construction activities have begun, bats will be less likely to use the area for roosting because of the increased activity in the area. If no maternity roosts are found, but other day or night roosts of bats are located, where possible, the biologist will exclude the bats from these roosts prior to construction, or alternately all construction can be postponed until the bats have migrated from the roosts. If the bats are resident species that could potentially hibernate onsite, the biologist will exclude the bats from the roosting structure, where possible, prior to the hibernation period (generally November through March) and before construction begins.</p> <p>If avoiding construction during this time period is not possible, compensatory mitigation for the loss of roosting habitat shall be determined in consultation with CDFG. This may include the construction and installation of suitable</p>	LTS	SLT	Before construction (demolition)	During construction to ensure contractor compliance, if required
		Full Tidal Alternative	S				LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						replacement habitat onsite.				
BIO-11	Potential Loss of California Red-Legged Frog Individuals	Proposed Project	S	BIO-MM-9	Minimize and Avoid Impacts to California Red-Legged Frog	<p>Because California red-legged frogs are known to occur onsite and restoration activities will occur in suitable habitat areas, a BO authorizing incidental take, as described above under the federal ESA, must be obtained from the USFWS, through preparation of a BA and a Section 7 consultation prior to the start of restoration activities. Measures to avoid and minimize impacts to California red-legged frog may include the following:</p> <ul style="list-style-type: none"> ■ All grading activity within suitable aquatic and associated upland habitat (within 300 feet of aquatic habitat) shall be conducted during the dry season, between May 1 and October 15, or before the onset of the rainy season, whichever occurs first unless exclusion fencing is utilized. Construction that commences in the dry season may continue into the rainy season if exclusion fencing is placed between the construction area and the suitable habitat to keep frogs from entering the construction area. ■ The footprint of all ground-disturbing activities within suitable habitat shall be the minimum area necessary for construction. ■ SLT shall retain a qualified wildlife biologist to conduct preconstruction clearance surveys no more than 24 hours before ground disturbance in aquatic and upland habitats and conduct ongoing monitoring of construction within suitable aquatic and upland habitats. ■ A USFWS-approved biological monitor shall remain onsite during all activities within suitable aquatic and associated upland habitat (as defined above). During dredging and vegetation removal, the monitor shall examine all material removed for the presence of frogs. If a California red-legged frog is found, it will be removed from the material by a USFWS-approved biologist and placed in suitable habitat outside of the construction area. ■ All food and food-related trash shall be stored away from sensitive areas and enclosed in sealed trash containers at the end of each workday. Food-related trash removal will occur no less than every 3 days. ■ No pets shall be allowed on the construction site. ■ Speed limits of 15 mph shall be maintained on dirt roads and other access areas. ■ All equipment shall be maintained such that there will be no leakage of automotive fluids such as fuels, oils, and solvents. Any fuel or oil leaks will be cleaned up immediately and disposed of properly. ■ All hazardous materials such as fuels, oils, solvents, etc., shall be stored in sealable containers in a designated location that is at least 200 feet from drainages or other aquatic habitats. All fueling and maintenance of vehicles and other equipment will occur at least 200 feet from these areas. ■ If a California red-legged frog is encountered during any Project activity, activities shall cease until the frog is removed by a 	LTS	SLT	During design, during constr.	Ensure measures are integrated into design and specifications as necessary; ensure contractor compliance with requirements
		Full Tidal Alternative	S				LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						<p>USFWS-approved biologist and relocated to nearby suitable aquatic habitat outside the construction area. USFWS and CDFG shall be notified within 5 working days of any California red-legged frog relocation.</p> <ul style="list-style-type: none"> Additional measures may be included in the BA and/or required as part of the incidental take permit. 				
BIO-12	Habitat Enhancement for California Red-Legged Frog	Proposed Project	Beneficial	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	Beneficial							
BIO-13	Potential for Loss of Suitable California Tiger Salamander Habitat and Individuals, if Present	Proposed Project	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	No Impact							
BIO-14	Potential Impacts to Northwestern Pond Turtle	Proposed Project	S	BIO-MM-10	Conduct Preconstruction Survey for Northwestern Pond Turtle and Construct Exclusion Fencing, if Needed	<p>In April or May, before breaching activities in Tolay Creek are initiated, a qualified biologist shall conduct a survey for northwestern pond turtles along Tolay Creek. The survey will encompass the breaching area and an area 0.25 mile upstream and downstream of this area. The purpose of this survey is to determine whether turtles are using the creek during the period when they are most likely to be observed. If turtles are observed, measures “a” and “b” below will be implemented. If turtles are not observed, only measure “b” will be implemented.</p> <p>a. If Northwestern pond turtles are observed during the spring survey, fences will be constructed upstream and downstream of the construction area to prevent turtles from entering the construction area. The fences will be constructed 150 feet upstream and downstream beyond the limit of breaching. The fences will be perpendicular to the creek. If turtles are observed within the fenced area, the turtles shall be moved downstream of the construction area, outside the barrier fences, by a qualified biologist in accordance with requirements from CDFG before construction begins. Turtles will be excluded from the construction area between July and October to prevent them from seeking hibernation sites within the construction area. Fencing will be left in place during the entire time when construction is occurring outboard of existing perimeter levees.</p> <p>b. Before excavation occurs for the breaches to Tolay Creek, a qualified biologist will conduct a preconstruction survey for Northwestern pond turtles within the proposed work area. This survey will be conducted 24 hours before construction activities begin. If a turtle is found within the construction area, the biologist will try to passively move the turtle downstream of the area or outside of the barrier fence, if constructed (see “a” above). If barrier fences have not been installed, the biologist will return to the breach site the following day to ensure that the turtle has not moved back into the area.</p>	LTS	Before constr., during constr.	SLT	Ensure surveys are conducted and contractor compliance with protective requirements
		Full Tidal Alternative	S				LTS			
BIO-15	Potential Loss of Suitable Habitat for Callippe Silverspot Butterfly and Myrtle’s Silverspot Butterfly	Proposed Project	S	BIO-MM-11	Avoid and Minimize Impacts to Suitable Habitat for the Callippe Silverspot and Myrtle’s Silverspot Butterflies	<p>Because Callippe silverspot butterfly and Myrtle’s silverspot butterfly have a high potential to occur onsite and restoration activities will occur in suitable habitat areas, a BO authorizing incidental take, as described above under the federal ESA, must be obtained from the USFWS, through preparation of a BA and a Section 7 consultation prior to the start of restoration activities. Measures to avoid and minimize impacts to these butterfly species include the following:</p>	LTS	SLT	Before constr., during constr.	Ensure measures are integrated into design and specifications as necessary; ensure contractor compliance with requirements
		Full Tidal Alternative	S				LTS			

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						<ul style="list-style-type: none"> A qualified biologist shall supervise the installation of construction barrier fences around stands of <i>Viola pedunculata</i>. The barrier fence will be installed as the first order of work and will provide a minimum 25-foot buffer around populations of host plant. No construction activities will be permitted within the fenced area. A biological monitor shall inspect the fences around the stands of <i>Viola pedunculata</i> periodically during construction to ensure that the fence is upright and intact. If the fences fall over or are damaged, the monitor will bring this to the attention of the construction foreman immediately and the fences will be repaired. <p>Additional measures may be included in the BA and/or required as part of the incidental take permit. If the stands of <i>Viola pedunculata</i> cannot be avoided, the habitat will be mitigated onsite or offsite at a ratio determined in consultation with USFWS.</p>				
BIO-16	Potential for Construction-Related Water Quality Effects on Special-Status Fish Species	Proposed Project	S	WQ-MM-1, WQ-MM-3	See Above Descriptions	See Above Descriptions	LTS	See Above Descriptions	See Above Descriptions	See Above Descriptions
		Full Tidal Alternative	S				LTS			
BIO-17	Potential for Construction-Related Mortality of Special-Status Fish Species	Proposed Project	S	BIO-MM-12	Avoid Construction in Tidal Aquatic Habitats when Rearing Salmonids and Longfin Smelt could be Present; Utilize Silt Curtains for Dredging to Minimize Entrainment	SLT shall, to the extent feasible, avoid construction activities that could affect tidal aquatic habitats (e.g., construction associated with lowering the perimeter levee and excavating tidal channels through the outboard salt marsh) during periods when rearing juvenile salmonids, and juvenile longfin smelt could be present (typically November thru June). If construction activities must occur during periods when these species could be present, SLT shall consult with NMFS and CDFG to determine what, if any, additional conservation measures may be required to allow construction to proceed. Any dredging associated with the breaches to Tolay Creek shall be done within silt curtains to minimize the potential entrainment of green sturgeon. If hydraulic dredging is utilized to excavate the Connector Channel and Breach 1, then the associated pump size would be limited to no more than 10 inches in order to restrict the approach velocity to a level unlikely to entrain green sturgeon in the area. To minimize the potential of taking longfin smelt, the following minimization measures shall be implemented: dredging may proceed anywhere when water temperature exceeds 22 degrees Celsius, and if water temperature is less than 22 degrees Celsius, no dredging shall occur in water less than 2 parts per thousand between December 1 and June 30; downstream of the 2 parts per thousand salinity contour the dredge shall be primed and cleared within 3 feet of the bottom between December 1 and June 30 and within three feet of the surface between July 1 and November 30, and dredge operation in the water column above the substrate shall be minimized.	LTS	SLT	Before constr., during constr.	Ensure work windows are integrated into specifications; ensure contractor compliance with requirements
		Full Tidal Alternative	S				LTS			
BIO-18	Construction-Related Reduction in Food Availability for Special-Status Fish Species	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
BIO-19	Reduction in Fish Habitat Due to Restoration Activities	Proposed Project	Beneficial	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	Beneficial							
LAND USE		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A

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LU-1	Conflict with Existing Land Uses	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
LU-2	Compatibility with Surrounding Land Uses	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
LU-3	Consistency with Applicable General Plan Policies	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
LU-4	Consistency with NWRS and CDFG Land Management Policies	Proposed Project	Beneficial	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	Beneficial							
LU-5	Consistency with Designated Bay Trail Routes	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
LU-6	Conflict with Existing Utilities and Utility Easements	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AGRICULTURE		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
AG-1	Conversion of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to Non-Agricultural Use	Proposed Project	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	No Impact							
AG-2	Conversion of Farmland of Local Importance to Non-Agricultural Use	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AG-3	Change in Management of Farmland of Local Importance	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AG-4	Change in Management of Grazing Land	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
RECREATION		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
REC-1	Consistency with Existing or Proposed Public Access Plans	Proposed Project	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
REC-2	Conflicts with Existing or Proposed Recreational Uses	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
HAZARDS		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
HAZ-1	Accidental Release of Fuels and Lubricants during Construction	Proposed Project	S	HAZ-MM-1	Prepare and Implement a Spill Prevention, Control, and Countermeasure Program for Construction Activities	<p>As part of compliance with the NPDES General Construction Permit, a Hazardous Material Spill Prevention Control and Countermeasure Plan shall be prepared for the use of construction equipment for the Project, and shall minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction of the project. This plan shall describe storage procedures and construction site housekeeping practices and identify the parties responsible for monitoring and spill response. The measures and monitoring procedures required under the General Construction Permit shall minimize the potential for release of hazardous materials to the environment. SLT shall routinely inspect the action area to verify that the BMPs specified in the plan are properly implemented and maintained, and immediately notify the contractor if there is a noncompliance issue and shall require compliance.</p> <p>The federal reportable spill quantity for petroleum products, as defined in the EPA's CFR (40 CFR 110) is any oil spill that (1) violates applicable water quality standards, (2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or (3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.</p> <p>If a spill is reportable, the contractor's superintendent shall follow the guidelines in the plan. A written description of reportable releases shall be submitted to the RWQCB. This submittal shall include a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. If a reportable spill has occurred and results determine that project activities have adversely affected surface or groundwater quality in excess of water quality standards, a detailed analysis shall be performed to identify the likely cause of contamination. This analysis shall conform to American Society for Testing and Materials (ASTM) standards, and shall include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, SLT and/or their contractors shall select and implement measures to control contamination. These measures shall be subject to approval by the SCDEH and DTSC.</p>	LTS	SLT	Before constr., during constr.	Ensure SPCC program is developed and requirements are integrated into specifications; ensure contractor compliance with requirements
		Full Tidal Alternative	S				LTS			
HAZ-2	Exposure of Humans, Plants, or Wildlife to Contaminants as a Result of Black Point Sports Club Remediation Activities – Excavation	Proposed Project	S	HAZ-MM-2a	Coordinate with State Water Board on Site Clean-Up Requirements Prior to Construction	SLT shall coordinate with the RWQCB to define RWQCB requirements for site clean-up consistent with the approved CAP based on actual site conditions. Potential activities may include additional testing, removal, remediation, and disposal of affected soils. Any remedial activities will be in compliance with applicable local, state, and federal regulations.	LTS	SLT	Before constr., during constr.	Ensure CAP requirements are integrated into specifications; ensure contractor compliance with requirements
		Full Tidal Alternative	S	HAZ-MM-2b	Black Point Sports Club Contaminated Soil Excavation Protocols	<p>After excavation is completed to the depths described in the Corrective Action Plan, soil samples will be taken to confirm that the proposed cleanup criteria have been achieved. If not, additional soil will be removed and the remaining soil retested until the criteria are met.</p> <ul style="list-style-type: none"> Due to the presence of the shallow water table, earthmoving operations using scrapers may be impractical on the shooting range area. Instead, soil can be excavated using hydraulic excavators working from southeast to northwest, and loaded directly into trucks for transport. This will allow the excavation equipment to remain on ground that is higher than the water table and higher than the area being excavated. Excavators or Gradalls can be used to remove the soil from the northwestern slope of the 	LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
				HAZ-MM-2c	Remediation Design Tasks	<p>outboard levee and the soil can be loaded directly into trucks located on the levee northeast of the excavation equipment.</p> <ul style="list-style-type: none"> ■ Although no special-status or culturally significant wildlife species have been confirmed to use the shooting range as nesting habitat, two bird species were identified as having the potential to do so (horned lark and song sparrow). Nesting for these species occurs in March through June, so it is recommended that excavation work be completed outside of this timeframe, unless it can be confirmed that the birds do not use the area for nesting. ■ Soil impacted by the presence of lead shot, lead compounds in the soil, clay target debris, and/or PAHs will be excavated and removed. Depending on concentrations of lead compounds and PAHs in soil and the presence of lead pellets or visible clay target fragments, the upper 0.5 feet to 2.0 feet of soil will be removed from the ground surface. The estimated area that will be excavated to a depth of 0.5 feet is approximately 148,000 square feet, amounting to a volume of approximately 2,700 cubic yards. ■ In areas where soil contains lead or PAHs above the proposed cleanup concentrations, soil will be removed to a depth of one foot over approximately 161,000 square feet and to a depth of two feet over approximately 43,000 square feet, amounting to volumes of approximately 6,100 and 3,200 cubic yards, respectively. ■ Remedial design plans and specifications will be developed in conjunction with the final design phase of the restoration project. During this phase, the final layout of the new levee will be determined, and construction requirements will be specified. ■ The final design will address remedial implementation requirements, such as monitoring the removal, transport and consolidation activities, surveying the final elevations and dimensions of the consolidated soil, and providing field markings for the interred soil. ■ The remedial design will include a confirmation sampling plan to document removal of the affected soil and the quality of the soil remaining at the future wetlands surface. The remedial design also will include a sampling plan to confirm the lead and PAH content of the soil that will be interred in the levee erosion protection/habitat slopes. ■ The remedial design will include a contingency in the event that confirmation results indicate that the removed soil exhibits hazardous characteristics. This contingency may include soil mixing and resampling, or possibly off-site disposal. ■ Health and safety requirements for workers, and other construction management components, such as dust and off-site migration control, will be provided. 				

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
				HAZ-MM-2d	Comply with Approved Corrective Action Plan and Prepare Implementation Report	SLT shall comply with all required elements of the Corrective Action Plan. A Corrective Action Implementation Report will be prepared at the completion of the remediation. The report will document remediation activities and will include the sampling results of the confirmatory sampling program. The report will be submitted to the Water Board for approval. The Soil Management Plan will be prepared in conjunction, but separately, from the Corrective Action Implementation Report, and also will be submitted to the Water Board for approval.				
				HAZ-MM-5a (Required for Full Tidal Alternative Only)	Prepare a Site Safety Plan (Soil and Groundwater Management Plan) to Protect People from Residual Soil/Groundwater Contamination During Construction	<p>The construction specifications shall include this measure to protect construction workers and/or the public from known or previously undiscovered soil and groundwater contamination during construction activities. Prior to excavation, a Site Safety Plan (Soil and Groundwater Management Plan) will be prepared and, at a minimum, include the following.</p> <ul style="list-style-type: none"> Require all construction activities involving work in proximity to potentially contaminated soils and/or groundwater be undertaken in accordance with California Occupational Safety and Health Administration (Cal-OSHA) standards, contained in Title 8 of the CCR. Establish soil and groundwater mitigation and control specifications for construction activities, including health and safety provisions for monitoring exposure to construction workers, procedures to be undertaken in the event that previously unreported contamination is discovered, and emergency procedures and responsible personnel. Procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater where contaminants are stored, managed, and disposed in accordance with applicable regulations. 				
HAZ-3	Exposure of Humans, Plants, or Wildlife to Contaminants as a Result of Black Point Sports Club Remediation Activities – Placement	Proposed Project	S	HAZ-MM-3a	Black Point Sports Club Excavated Material Placement for Construction of Levee Protocols	<ul style="list-style-type: none"> To isolate the removed soil from eroding or otherwise returning to the wetlands environment, it will be placed in the erosion protection/habitat slopes of the proposed flood control levee to be constructed northwest of the shooting range and immediately southeast of the SMART rail line. The flood control levee segment that is proposed was identified by the restoration design team as a segment that would not be proposed for future levee breaching, should modifications be made to the restoration design in the future. This levee segment wraps around the uplands of Sears Point and therefore would not be an effective or practical segment for a breach. Locating the soil within this segment minimizes the potential for future disturbance of the soil, and will not impede future modifications to the restoration. The soil will be placed at the base of the levee, and at a minimum of three feet above the current groundwater surface elevation, providing a buffer from direct contact of the soil with the groundwater. Although the specific dimensions will vary according to the final levee design and actual volume of soil that is excavated, a preliminary estimate of the cross-sectional area and length of 	LTS	SLT/DFG	During constr., after constr.	Ensure CAP requirements are integrated into specifications; ensure contractor compliance with requirements; monitor long-term compliance with soil management plan
		Full Tidal Alternative	S				LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
				HAZ-MM-3b	Administrative Controls	<p>levee that will be needed (based on preliminary levee dimensions provided by the restoration design team and estimated 12,000 cubic yards of soil expected to be excavated), the cross-sectional area of interred materials is approximately 260 square feet and will require approximately 1,250 linear feet of levee. If the cross-sectional area were smaller or larger, a longer or shorter segment of levee would be needed. For example, decreasing the cross-sectional area by 25% would increase the length of the levee segment by 25%.</p> <p>SLT and its successor landowner agencies shall implement appropriate administrative controls to ensure that the encapsulated soil is not inadvertently exposed.</p> <ul style="list-style-type: none"> ■ Proposed administrative controls include the development of a long-term soil management plan to control access to the interred soil and inform future landowners of the presence and location of the soil. ■ Provisions of the plan will address possible access to the soil associated with levee maintenance or construction activities (e.g., utility installation). The plan also will include provisions to periodically inspect the levee for integrity and provide guidance on handling the affected soil, should access or relocation be necessary. ■ Land-use restrictions would be applied to the segment of the levee where the soil is interred. The restrictions would prevent future changes in land-use that could increase potential exposure to receptors. Land-use restrictions would be filed with the Sonoma County Recorder in the form of an environmental covenant. 				
				HAZ-MM-5a	Prepare a Site Safety Plan (Soil and Groundwater Management Plan) to Protect People from Residual Soil/Groundwater Contamination During Construction	<p>The construction specifications shall include this measure to protect construction workers and/or the public from known or previously undiscovered soil and groundwater contamination during construction activities. Prior to excavation, a Site Safety Plan (Soil and Groundwater Management Plan) will be prepared and, at a minimum, include the following.</p> <ul style="list-style-type: none"> ■ Require all construction activities involving work in proximity to potentially contaminated soils and/or groundwater be undertaken in accordance with California Occupational Safety and Health Administration (Cal-OSHA) standards, contained in Title 8 of the CCR. ■ Establish soil and groundwater mitigation and control specifications for construction activities, including health and safety provisions for monitoring exposure to construction workers, procedures to be undertaken in the event that previously unreported contamination is discovered, and emergency procedures and responsible personnel. <p>Procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater where contaminants are stored, managed, and disposed in accordance with applicable</p>				

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						regulations.				
HAZ-4	Potential Exposure of Humans, Plants, or Wildlife to Hazardous Chemicals Contained in Dredged Material -- Dredging and Material Placements and Activities	Proposed Project	S	HAZ-MM-4	Sampling and Reuse/Disposal of Dredged Materials Based on DMMO Protocols	<ul style="list-style-type: none"> SLT shall sample and test sediments proposed to be dredged for chemical constituents of concern and for toxicity using protocols acceptable to the DMMO. The DMMO will evaluate the adequacy of the sampling and testing and the acceptability of the dredged material for reuse at proposed sites in the restoration area for beneficial reuse as either wetland foundation or surface material. 	LTS	SLT	Before constr., during constr.	Per DMMO and permit requirements
		Full Tidal Alternative	S				LTS			
HAZ-5	Potential Exposure of Humans, Plants, or Wildlife to Contaminants As a Result of Construction/Restoration Activities	Proposed Project	S	HAZ-MM-5a	Prepare a Site Safety Plan (Soil and Groundwater Management Plan) to Protect People from Residual Soil/Groundwater Contamination During Construction.	<p>The construction specifications shall include this measure to protect construction workers and/or the public from known or previously undiscovered soil and groundwater contamination during construction activities. Prior to excavation, a Site Safety Plan (Soil and Groundwater Management Plan) will be prepared and, at a minimum, include the following.</p> <ul style="list-style-type: none"> Require all construction activities involving work in proximity to potentially contaminated soils and/or groundwater be undertaken in accordance with California Occupational Safety and Health Administration (Cal-OSHA) standards, contained in Title 8 of the CCR. Establish soil and groundwater mitigation and control specifications for construction activities, including health and safety provisions for monitoring exposure to construction workers, procedures to be undertaken in the event that previously unreported contamination is discovered, and emergency procedures and responsible personnel. Procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater where contaminants are stored, managed, and disposed in accordance with applicable regulations. 	LTS	SLT	Before constr., during constr.	Conduct survey; include requirements in specifications; ensure contractor compliance during construction
		Full Tidal Alternative	S				LTS			
				HAZ-MM-5b	Implement Measures to Protect People from Exposure to Lead and Asbestos in Buildings During Building Demolition Activities	<p>To protect construction workers and members of the public from known or undiscovered hazardous building materials, including asbestos and lead, all demolition activities will be undertaken in accordance with Cal-OSHA standards, contained in Title 8 of the California Code of Regulations (CCR). During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal-OSHA Lead in Construction Standard, Title 8, California Code of Regulations 1532.1. All potentially friable asbestos-containing materials (ACMs) shall be removed in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines prior to building demolition that may disturb the materials. Applicable standards may include the following:</p> <ul style="list-style-type: none"> The facility will be inspected before any demolition occurs in which 160 square feet or more of building materials or 260 linear feet or more of pipe insulation will be disturbed at a regulated facility. An asbestos notification form will be submitted to the BAAQMD for any regulated asbestos abatement project 10 working days before the activity begins. 				

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
						<ul style="list-style-type: none"> If ACMs are discovered during demolition, they must be removed before the project may proceed. 				
TRAFFIC		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
T-1	Change in LOS at Important Intersections and Roadway Segments during the Construction Phase	Proposed Project	S	T-MM-1	Prepare and Implement Traffic Control Plan	<p>SLT shall develop a traffic control plan to minimize the effects of construction traffic on adjacent land uses. The traffic control plan will identify all route restrictions, signage, striping, detours, flagging operations, and/or other devices used during construction to guide motorists safely through the construction zone. In addition, the plan would include provisions for coordinating with local emergency service providers regarding construction times and locations of lane closures. Implementation of the traffic control plan is expected to reduce the Project's impacts on level of service, traffic flow, and safety to less than significant. SLT will be responsible for monitoring to ensure that the plan is effectively implemented by the construction contractor. Depending on specific conflicts identified, the construction traffic control plan may include measures such as:</p> <ul style="list-style-type: none"> Limit lane closures on streets to the immediate vicinity of work areas. Install standard construction warning signs in advance of construction activities that affect area roadways. Provide access for driveways and private roads outside the immediate construction zone by using steel plates or temporary backfill if needed. Provide crossing guards or flagpersons as needed to avoid traffic conflicts. Notify and consult with emergency service providers and provide emergency access by whatever means necessary to expedite and facilitate the passage of emergency vehicles. Prohibit mobilization and demobilization of heavy construction equipment during AM and PM peak traffic hours. Prohibit truck traffic (spoils haulage and materials deliveries) during AM and PM peak traffic hours. 	LTS	SLT	Before constr., during constr.	Prepare plan; include requirements in specifications; ensure contractor compliance during construction
		Full Tidal Alternative	S				LTS			
T-2	Change in LOS at Important Intersections and Roadway Segments during Post-Construction Operation	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
T-3	Increase Hazards Due to Design Feature	Proposed Project	S	T-MM-1	See Above Description	See Above Description	LTS	See Above Description	See Above Description	See Above Description
		Full Tidal Alternative	S				LTS			
T-4	Result in Inadequate Emergency Access	Proposed Project	Beneficial	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	Beneficial							
AIR QUALITY		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
AQ-1	Increase in Criteria Pollutant Emissions as a result of Construction	Proposed Project	S	AQ-MM-1	Implement BAAQMD BMPs to Reduce Emissions of PM10	<p>To control the generation of construction-related PM10 emissions, SLT shall incorporate the BAAQMD BMP measures to the degree feasible to ensure emissions are reduced as much as possible. These measures include the following:</p> <ul style="list-style-type: none"> ■ Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. ■ Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. ■ Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. ■ Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. ■ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). ■ Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles. ■ Limit traffic speeds on unpaved roads to 15 mph. ■ Install sandbags or other erosion control measures to prevent silt runoff to public roadways. ■ Replant vegetation in disturbed areas as quickly as possible. ■ Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site. ■ Limit the area subject to excavation, grading and other construction activity at any one time. <p>In addition, the construction contracts shall include measures to reduce combustion pollutants to address particulate matter (PM2.5) exposure from diesel engines consistent with the 2010 BAAQMD CEQA guidelines where feasible. The contractor shall be required to submit an inventory of equipment to confirm compliance with the Level 3 abatement device requirements of the CARB. In addition mitigation may include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, reduction in idling time, add-on devices such as particulate filters, and/or other options as they become available. The mitigated emissions shown in Tables 3.11-5 through 3.11-7 do not reflect the further reductions in emissions associated with these specific PM2.5 reduction measures.</p>	LTS	SLT	Before constr., During constr.	Include requirements in specifications; ensure contractor compliance during construction
		Full Tidal Alternative	S				LTS			
AQ-2	Generation of Criteria Pollutant Emissions in Excess of Federal <i>de minimis</i> Thresholds	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AQ-3	Exposure of Sensitive Receptors to Substantial Pollution Concentrations or Objectionable Odors	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AQ-4	Increase in GHG Emissions	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
		Full Tidal Alternative	LTS							
NOISE		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
N-1	Temporary Increases in Ambient Noise Levels during Construction Activities	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
N-2	Permanent Increases in Ambient Noise Levels Following Construction	Proposed Project	S	N-MM-1	Design Facility to Reduce Noise Levels	SLT shall employ measures to reduce noise from operational pumps near adjacent segments of the Bay Trail. Treatments to reduce noise may include, but are not limited to: constructing enclosures around equipment, installation of noise absorptive treatments and other noise insulating materials, and locating equipment away from noise sensitive uses. Measures would be designed so that applicable County noise standards are met. SLT shall retain a qualified acoustical professional to determine that the treatments are sufficient to reduce sound levels at adjacent segments of the trail.	LTS	SLT	Before constr., during constr.	Include requirements in specifications; ensure contractor compliance during construction
		Full Tidal Alternative	S				LTS			
CULTURAL RESOURCES		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
CR-1	Damage or Destruction of Archaeological Resources	Proposed Project	S	CR-MM-1a	Conduct Pre-Construction Cultural Resources Surveys and Required Consultation for any Areas that Have Not Previously been Surveyed	If any activities requiring earthmoving or removal of existing structures will occur in areas that have not previously had a cultural resources field survey, SLT shall consult with knowledgeable experts to determine whether an intrusive survey is required and conduct any needed survey prior to construction, or retain a qualified professional to conduct or oversee near-shore monitoring during construction. SLT shall also complete any necessary consultation with SHPO and implement any necessary protective measures.	LTS	SLT	Before constr., during constr.	Conduct survey if needed, Include requirements in specifications; ensure contractor compliance during construction
		Full Tidal Alternative	S	CR-MM-1b	Stop Work if Buried Cultural Resources are Discovered Inadvertently	If buried cultural resources, such as chipped or ground stone, large quantities of shell, historic debris, or building foundations are discovered inadvertently during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with SLT, other agencies, and Native American representatives as appropriate. All construction workers involved in earthmoving activities shall receive training to help them recognize the presence of cultural artifacts.	LTS			

Impact No.	Impact Name	Alternative	Significance Before Mitigation	Mitigation Measure No.	Mitigation Measure Name	Mitigation Measure Description	Impact After Mitigation	Responsible Party	Timing	Monitoring Activity and Frequency
				CR-MM-1c	Stop Work if Human Remains are Encountered during Construction Activities	<p>If human skeletal remains are encountered, the county coroner shall be contacted immediately. If the county coroner determines that the remains are Native American, the coroner will then be required to contact the Native American Heritage Commission (NAHC) (pursuant to Section 7050.5 (c) of the California Health and Safety Code) and the County Coordinator of Indian Affairs. A qualified cultural resources specialist also shall be contacted immediately.</p> <p>If any human remains are discovered in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:</p> <ul style="list-style-type: none"> ■ the county coroner has been informed and has determined that no investigation of the cause of death is required; and ■ if the remains are of Native American origin, <ul style="list-style-type: none"> • the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or • the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission. 				
CR-2	Destruction of Significant Historic Resource	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AESTHETICS		No Action	No Impact	Not Required	N/A	N/A	N/A			
AE-1	Changes in Views from a Designated Scenic Corridor	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	SU	None Available	None Available	None Available	SU			
AE-2	Temporary Changes in Visual Character of the Project Site	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AE-3	Permanent Changes in Visual Character of the Project Site	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	LTS							
AE-4	Permanent Obstruction of Existing Public Views of the Project Site	Proposed Project	LTS	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
		Full Tidal Alternative	SU	None Available	None Available	None Available	SU			
ENVIRONMENTAL JUSTICE		No Action	No Impact	Not Required	N/A	N/A	N/A	N/A	N/A	N/A
EJ-1	Temporary or Permanent Effects on Minority or Low-Income Groups in the Project Vicinity	Proposed Project	S	HAZ-MM-5 WQ-MM-1	See Descriptions Above	See Descriptions Above	LTS	See Descriptions Above	See Descriptions Above	See Descriptions Above
		Full Tidal Alternative	S	WQ-MM-2 WQ-MM-3			LTS			

NOTES:

LTS = Less than Significant; S = Significant; SU = Significant and Unavoidable

**EXHIBIT D – SEARS POINT
WETLAND AND WATERSHED RESTORATION PROJECT
(STATE CLEARINGHOUSE NO. 2007102037)**

**CALIFORNIA STATE LANDS COMMISSION
STATEMENT OF FINDINGS**

1.0 INTRODUCTION

The California State Lands Commission (CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings to comply with CEQA as part of its discretionary approval to authorize issuance of a General lease - Other, to Sonoma Land Trust (SLT), for use of sovereign lands associated with the proposed Sears Point Wetland and Watershed Restoration Project (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines, § 15381.)¹ The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions. (Pub. Resources Code, §§ 6301, 6306.) All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

The CSLC is a responsible agency under CEQA for the Project because the CSLC must approve a lease for the Project to go forward and because the California Department of Fish and Wildlife (CDFW, formally referred to as the California Department of Fish and Game [CDFG]), as the CEQA lead agency, has the principal responsibility for approving the Project and has completed its environmental review under CEQA. The CDFW analyzed the environmental impacts associated with the Project in a Final Environmental Impact Report/Impact Statement (EIR/EIS) (State Clearinghouse [SCH] No. 2007102037) and, in June 2012, certified the Final EIR/EIS and adopted a Mitigation Monitoring and Reporting Program (MMRP) and Findings.

The Project would restore approximately 955 acres of tidal marsh; preserve and enhance a 106-acre area of non-tidal seasonal wetland while maintaining existing agriculture between the SMART line and Highway 37; provide public recreation access south and possibly north of Highway 37; and enhance 15.5 acres of additional breeding habitat for the California red-legged frog, including creation of 0.86 acre of excavation in the floodplain near the northern Project boundary.

¹ CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, Title 14, section 15000 et seq.

Under the proposed Project (Partial-Tidal Alternative), the CDFW determined that the Project could have significant environmental effects on the following environmental resources:

- Geology;
- Water Quality;
- Public Health and Safety;
- Biological Resources;
- Hazardous Substances and Waste;
- Traffic;
- Air Quality;
- Noise;
- Cultural Resources; and
- Environmental Justice.

Of those 10 resources areas, Project components within the CSLC's jurisdiction (i.e., dredging) could have significant environmental effects on eight of the above resource areas:

- Water Quality;
- Public Health and Safety;
- Biological Resources;
- Hazardous Substances and Waste;
- Air Quality;
- Noise;
- Cultural Resources; and
- Environmental Justice.

In certifying the Final EIR/EIS and approving the Project, the CDFW imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts would be substantially lessened with implementation of these mitigation measures such that the impacts would be less than significant.

As a responsible agency, the CSLC complies with CEQA by considering the EIR/EIS and reaching its own conclusions on whether, how, and with what conditions to approve a project. In doing so, the CSLC may require changes in a project to lessen or avoid the effects, either direct or indirect, of that part of the project which the CSLC will be called on to carry out or approve. In order to ensure the identified mitigation measures and/or Project revisions are implemented, the CSLC adopts the Mitigation Monitoring Program (MMP) as set forth in Exhibit C as part of its Project approval.

2.0 FINDINGS

The CSLC's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each "public

agency” that approves a project for which an EIR has been certified that identifies one or more significant impacts on the environment (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines, § 15091, subd. (a).) Because the EIR/EIS certified by the CDFW for the Project identifies potentially significant impacts that fall within the scope of the CSLC’s approval, the CSLC makes the Findings set forth below as a responsible agency under CEQA. (State CEQA Guidelines, § 15096, subd. (h); *Resource Defense Fund v. Local Agency Formation Comm. of Santa Cruz County* (1987) 191 Cal.App.3d 886, 896-898.)

While the CSLC must consider the environmental impacts of the Project as set forth in the EIR/EIS, the CSLC’s obligation to mitigate or avoid the direct or indirect environmental impacts of the Project is limited to those portions which it decides to carry out, finance, or approve (Pub. Resources Code, § 21002.1, subd. (d); State CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g).) Accordingly, because the CSLC’s exercise of discretion involves only issuing a lease for this Project, the CSLC is responsible for considering only the environmental impacts related to lands or resources subject to the CSLC’s jurisdiction. With respect to all other impacts associated with implementation of the Project, the CSLC is bound by the legal presumption that the EIR/EIS fully complies with CEQA.

The CSLC has reviewed and considered the information contained in the Project EIR. All significant adverse impacts of the Project identified in the EIR/EIS relating to the CSLC’s approval of a General lease - Other, which would allow dredging, wetland restoration, and construction of public access trail segments, are included herein and organized according to the resource affected. These Findings, which reflect the independent judgment of the CSLC, are intended to comply with CEQA’s mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. Possible findings on each significant effect are:

- (1) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the CSLC. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- (3) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.²

² See Public Resources Code section 21081, subdivision (a) and State CEQA Guidelines section 15091, subdivision (a).

A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.

These Findings are based on the information contained in the EIR/EIS and information submitted by the Applicant, all of which is contained in the administrative record. The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in the Final EIR/EIS.

The CSLC is the custodian of the record of proceedings upon which its decision is based. The location of the CSLC’s record of proceedings is in the Sacramento office of the CSLC, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

A. SUMMARY OF FINDINGS

Based on the lead agency’s determination, there are no environmental issue areas on which the proposed Project would result in No Impact.

The EIR/EIS subsequently identified the following impacts as Less Than Significant:

- Surface-Water Hydrology, Tidal Hydraulics, and Sedimentation
- Land Use and Public Utilities
- Agricultural Resources
- Recreation
- Aesthetics

For the remaining potentially significant effects, the Findings are organized by significant impacts within the EIR/EIS issue areas as presented below.

B. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The impacts identified below (within CSLC’s jurisdiction) were determined in the Final EIR/EIS to be potentially significant absent mitigation; after application of mitigation, however, the impacts were determined to be less than significant.

1. Water Quality	WQ-1, WQ-2, WQ-5
2. Public Health and Safety	PH-1
3. Biological Resources	BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-9, BIO-11, BIO-14, BIO-16, BIO-17
4. Hazardous Substances and Waste	HAZ-1, HAZ-4
5. Air Quality	AQ-1

6. Noise	N-2
7. Cultural Resources	CR-1
8. Environmental Justice	EJ-1

1. WATER QUALITY

CEQA FINDING NO. WQ-1

Impact: **WQ-1. Degradation of Surface Water and Sediment Quality due to Release of Pollutants during Construction.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Fuel, lubricants, coolants, and other fluids contained by construction equipment are considered hazardous to water resources if accidentally released due to poor equipment maintenance or an unforeseeable incident during construction. Compliance with Regional Water Quality Control Board (RWQCB) permit requirements and other regulatory requirements, on-going monitoring, and proper management of hazardous materials, as required by Mitigation Measure WQ-MM-1 will mitigate this potential impact.

Implementation of Mitigation Measure (MM) **WQ-MM-1** has been incorporated into the Project to reduce this impact to a less-than-significant level.

WQ-MM-1. Implement Water Quality Control Measures for Project

Construction. Sonoma Land Trust (SLT), or its successors in interest (U.S. Fish and Wildlife Service [USFWS] and CDFW), and its contractors shall comply with conditions of construction permits from regulatory agencies, including the Regional Water Quality Control Board (RWQCB), to protect beneficial uses of water resources. RWQCB permit conditions require protection of water and sediment quality to the maximum extent practicable that is economically feasible and may include water quality monitoring surrounding the construction site, if appropriate. Compliance with permit conditions would adequately prevent degradation of water and sediment quality due to release of construction-related pollutants.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. WQ-2

Impact: **WQ-2. Degradation of Surface Water and Sediment Quality due to Increased Methyl Mercury Formation.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Marshes have the potential to increase conversion of elemental mercury to methyl mercury, which is then taken up by biota and concentrated through the food chain. Current research suggests that tidal marshes present less of a concern than freshwater marshes, and various monitoring efforts are on-going in San Francisco Bay. The Project will provide on-going monitoring to assess methyl mercury in biota associated with the Project Area, and as required by Mitigation Measure WQ-MM-2. Development and implementation of the Methyl Mercury Adaptive Management Plan, including associated monitoring, will mitigate this potential impact.

Implementation of **WQ-MM-2** has been incorporated into the Project to reduce this impact to a less-than-significant level.

WQ-MM-2. Develop and Implement a Methyl Mercury Adaptive Management Plan. Due to the uncertainties regarding mercury methylation and bioaccumulation processes, potential methyl mercury production at the Project site is best managed adaptively. Sonoma Land Trust (SLT), and its successors in interest (CDFW and USFWS), shall develop and implement an adaptive management plan to address methyl mercury production and accumulation in the restoration site.

- The methyl mercury adaptive management plan shall be developed in collaboration with other agencies with jurisdiction over contaminants in the Bay, and shall include review by a Technical Advisory Committee or Group; preferably an existing group that includes representatives from multiple agencies and projects, such as the South Bay Salt Pond Project Technical Advisory Committee.
- The methyl mercury adaptive management plan shall include a methyl mercury monitoring plan as well as triggers for further action. To evaluate the potential effects of the Proposed Project on mercury in biota, methyl mercury monitoring shall focus on biota, with an emphasis on resident sentinel species, preferably biosentinel fish.
- The proposed monitoring shall be coordinated with other methyl mercury biological monitoring conducted as part of the Regional Monitoring Program (RMP), and any other methyl mercury monitoring efforts that may be implemented in the North Bay during the designated monitoring period for the Proposed Project. The methyl mercury monitoring plan shall be developed in

more detail during the permitting phase, to ensure that it meets resource and regulatory agency needs.

- The goal of the adaptive management plan is to create a framework to review monitoring results and to develop corrective actions, in coordination with a technical advisory committee, based both on the best available science and feasibility to help ensure that tidal restoration at the Sears Point site does not substantially increase the risk of bioaccumulation for fish and wildlife species and does not substantially increase the risks related to human consumption of fish from San Pablo Bay or Tolay Creek. Physical changes that could be made to reduce methyl mercury production, if needed, could include change in water inundation management and vegetation conditions.
- The plan should be developed in consultation with the responsible regulatory agencies implementing and permitting other wetland restoration projects in the Bay (Regional Water Quality Control Board, San Francisco Bay Conservation and Development Commission, Corps, National Marine Fisheries Service, USFWS, federal Environmental Protection Agency, CDFW, etc.), potentially including the Hamilton Wetland Restoration Project and the South Bay Salt Pond Restoration Project (which has an Adaptive Management Plan that includes specific measures on methyl mercury). Staff of these agencies should be part of the adaptive management team to guide development of the plan; determine the duration, frequency of monitoring, constituents to be monitored, and monitoring protocols; and develop corrective actions as needed to minimize the adverse effects of methyl mercury.
- The methyl mercury adaptive management plan shall be modified as necessary to reflect increased understanding of mercury cycling in San Francisco Bay.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. WQ-5

Impact: **WQ-5. Potential Turbidity Impacts due to Dredging and Placement of Dredged Material.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Dredging of the Connector Channel and construction of the breaches could result in elevated turbidity in the vicinity of the dredging operations. This impact will be mitigated by Mitigation Measure WQ-MM-3, which requires compliance with applicable water quality permits.

Implementation of **WQ-MM-3** has been incorporated into the Project to reduce this impact to a less-than-significant level.

WQ-MM-3. Implement Water Quality Control Measures for Project Dredging.

SLT, its successors in interest (USFWS and/or the CDFW), and its contractors shall comply with conditions of construction permits from regulatory agencies, including the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB), to protect beneficial uses of water resources. USACE and RWQCB permit conditions require protection of water and sediment quality to the maximum extent practicable that is economically feasible and may include water quality monitoring surrounding the construction site, if appropriate. Compliance with permit conditions would adequately prevent degradation of water and sediment quality due to Project dredging.

SLT and its contractors shall ensure to the extent practicable that the turbidity (as measured in Nephelometric Turbidity Units [NTUs]) shall not exceed background levels by more than the 10 percent outside the Project Boundary when background levels are greater than or equal to 50 NTU, to the extent practicable. The Project Boundary for the dredged areas is to be defined by a silt curtain to be required by SLT of its contractors. In the event a silt curtain is not used to control turbidity, the Project Boundary shall be defined as the daily limit of dredging or excavation of breaches and connections in any area where such work occurs. If turbidity does increase above the exceedance level, SLT shall follow remedial measures required by RWQCB.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

2. PUBLIC HEALTH AND SAFETY

CEQA FINDING NO. PH-1

Impact: **PH-1. Increased Potential of Mosquito Breeding Habitat.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

The Project includes construction of marsh pannes on the exterior slope of the new levee and tidal wetlands, as well as enhancement of existing seasonal wetlands. The pannes, tidal wetlands, and seasonal wetlands provide important habitat, but could also serve as mosquito breeding habitat if not properly designed. This impact will be mitigated by Mitigation Measure PH-MM-1.

Implementation of **PH-MM-1** has been incorporated into the Project to reduce this impact to a less-than-significant level.

PH-MM-1. Coordinate Water Management, Restoration Design, Construction, and Operation Activities with MSMVCD. The following mitigation measure ensures that suitable habitat for mosquito production remains controlled and properly regulated throughout the design, construction, and implementation of the Project.

Sonoma Land Trust (SLT) and/or its successors in interest shall continue to consult and coordinate with the Marin-Sonoma Mosquito and Vector Control District (MSMVCD) during the design, construction, and operational phases of the Project. Consultation and coordination with MSMVCD to develop and implement strategies to reduce site suitability for mosquito breeding or control breeding populations may include the following actions:

- Continue to consult with MSMVCD during Project design to incorporate design elements of tidal wetland habitats to reduce the mosquito production potential of the Project.
- Mitigate the mosquito potential of high marsh pans by designing sizes, shapes, and orientation according to prevailing winds in order to maximize the potential for wind-wave turbulence of the flooded water surface. Minimal pan sizes of several thousand square feet, and exposure to westerly winds along the long axis of the pans, are expected to minimize production of standing saltwater mosquitoes. Rapid desiccation and hypersalinity of the high marsh pan following June-July spring high tides may also restrict floodwater mosquito production, relative to more gradually drained and dried pans of intertidal marsh plains.
- Size subtidal channels and ponds to ensure sufficient wind-wave turbulence to inhibit mosquito breeding.
- Consult with MSMVCD to develop and implement feasible measures to reduce the likelihood of ponding of surface water on the Project area during the construction period.
- Permit MSMVCD to have access to the Project area to monitor or control mosquito populations. Control activities on Refuge lands shall be consistent with the Refuge's Mosquito Management Plan.
- Regularly consult with MSMVCD to identify mosquito management problems, mosquito monitoring and abatement procedures, and opportunities to adjust water management practices in nontidal wetlands to reduce mosquito production during problem periods.
- Consult with MSMVCD to identify annual mosquitofish stocking requirements in nontidal wetlands.
- Consult with MSMVCD to identify opportunities for the Sonoma Land Trust to share costs or otherwise participate in implementing mosquito abatement programs if it is necessary for MSMVCD to increase mosquito monitoring and control programs beyond pre-Project levels.
- Include non-chemical control methods to minimize mosquito production to the maximum extent possible.

- Apply periodic air and ground applications of mosquito larvicides such as Golden Bear Oil 1111, BTI (*Bacillus thuringiensis* var. *israelensis*), Agnique, methoprene growth regulators, or other EPA-approved pesticides, as needed, and as allowed on U.S. Fish and Wildlife Service Refuge property.
- Establish permanent predator populations by inoculating wetland areas with predators captured in adjacent wetlands and from other sources.
- Provide tools to manage water levels in non-tidal areas, such as weir boards.
- Consult with MSMVCD to perform ongoing monitoring of larval and adult mosquito populations, water quality, and vegetation density.
- Implement control and management measures under the authority of MSMVCD.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

3. BIOLOGICAL RESOURCES

CEQA FINDING NO. BIO-3

Impact: **BIO-3. Loss of Tidal Salt Marsh.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

A small area of tidal marsh (less than 3 acres) will be removed during construction of the breaches and connector channel. The habitat slope on the new levee, the design features included in the Project, and the lowered perimeter levee are expected to provide ample area at appropriate elevations to allow for immediate colonization of tidal marsh vegetation to mitigate for this loss. Monitoring of habitat development required by Mitigation Measure BIO-MM-1 and any necessary adaptive management should tidal marsh habitat fail to develop as anticipated, will mitigate this impact. Long term, the Project will compensate for the loss of tidal salt marsh by greater than a 360:1 ratio.

Implementation of **BIO-MM-1** has been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-1. Ensure Establishment of Tidal Salt Marsh Habitat within 5 Years of Project Completion. Sonoma Land Trust (SLT) and/or its successors in interest shall monitor the restoration site following the completion to ensure that, at an absolute minimum, impacted tidal salt marsh habitat is replaced at a 3:1 ratio within 5 years of completion of the Proposed Project. If SLT conducts the monitoring, SLT shall report to USFWS and CDFW on the status of monitoring once a year during the 5 years following Project completion. Once achieved, SLT shall notify USFWS and CDFW that the compensation ratio has been

satisfied. If the required ratio is not achieved within the first 5 years following Project completion, SLT shall consult with USFWS and CDFW to determine the causes for the delay in tidal marsh development, and shall work with USFWS and CDFW to develop and implement appropriate adaptive management activities.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-4

Impact: **BIO-4. Loss of Special-Status Plant Populations.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Special-status plant species have the potential to be present in the Project area and to be affected by construction activities. This impact will be mitigated by surveying for special status plants during the appropriate season prior to construction (as required by Mitigation Measure BIO-MM-2a), and avoiding these plants if feasible, or replacing them through transplanting or reseedling, as necessary (as required by Mitigation Measure BIO-MM-2b).

Implementation of **BIO-MM-2a and 2b** have been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-2a. Survey for Special-Status Plants. SLT shall hire a qualified botanist to conduct special-status plant surveys prior to initiating construction. The purpose of these surveys will be to verify that the locations of special-status plants identified in previous surveys are extant, identify any new special-status plant occurrences, and cover any portions of the Project area not previously identified. The extent of mitigation for the direct loss of or indirect impacts on special-status plants shall be based on these survey results.

- Locations of special-status plants in proposed construction areas will be recorded using a global positioning system (GPS) unit and flagged. Surveys shall be timed so that plant surveys occur during the flowering periods of the potential species of interest.
- If initial screening by a qualified biologist identifies the potential for special-status plant species to be directly or indirectly affected by a work in a specific Project area, the biologist will determine appropriate protective measures to minimize the impact to the plant species. These measures may include, among others, establishing an adequate buffer area to exclude activities that would directly remove or alter an identified special-status plant population or

result in indirect adverse effects on the species' habitat, gathering seed, or relocating individual specimens. Any established buffer areas shall be clearly marked by a qualified biologist to prevent encroachment by construction vehicles and personnel. The buffer zone established by the fencing will be marked by a sign stating: This is habitat of [the special-status species being protected], a [identify the species' status] plant species, and must not be disturbed. This species is protected by [the Endangered Species Act of 1973, as amended/California Endangered Species Act/California Native Plant Protection Act].

- Violators are subject to prosecution, fines, and imprisonment. No construction activity, including grading, will be allowed until this condition is satisfied. No grading, clearing, storage of equipment or machinery, or other disturbance or activity will occur until all buffer areas have been marked by the qualified biologist.

BIO-MM-2b. Replace Special-Status Plants. If direct impact or loss of special-status plants is unavoidable, Sonoma Land Trust (SLT) or U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) as successor property owners shall replace lost species to the extent practicable, following an agreed-upon revegetation plan designated by USFWS and CDFW. SLT or USFWS and CDFW will monitor compensation efforts as deemed appropriate.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-5

Impact: **BIO-5. Introduction or Spread of Noxious Weeds during Construction, Operations and Maintenance.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Invasive non-native plants could be introduced to uninfested portions of the Project area through construction equipment and site maintenance activities. Proper site preparation, cleaning of construction equipment, and monitoring of invasive non-native plants, as well as control of these noxious plants if detected as required by Mitigation Measures BIO-MM-3a and BIO-MM-3b will mitigate this impact.

Implementation of **BIO-MM-3a and 3b** have been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-3a. Prevent Spread of Perennial Pepperweed and Other Invasive Weeds to Uninfested Areas. SLT shall hire a qualified botanist to conduct a

non-native plant assessment of areas subject to construction activities, prior to initiating construction, and will recommend specific measures to control spread of non-native species. Measures may include the establishment of wash stations for construction vehicles and equipment to clean tires of weed seeds and other propagules before they are moved offsite, and the development of an herbicide spray program to destroy perennial pepperweed or other invasive weed infestations prior to construction.

BIO-MM-3b. Monitor Restoration Sites for and Control Infestation by Invasive Non-Native Plants. Restoration areas will be monitored for infestation of invasive plants, such as non-native cordgrasses, perennial pepperweed, stinkwort, and/or other potentially invasive species. All infestations occurring within wetland habitats will be controlled and removed to the extent feasible. Also, a long-term monitoring plan will be developed and implemented by U.S. Fish and Wildlife Service or California Department of Fish and Wildlife.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-6

Impact: **BIO-6. Potential for Construction- Related Impacts to Salt Marsh Harvest Mice.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Endangered salt marsh harvest mouse (SMHM) could be killed or otherwise harmed by construction in pickleweed habitat. This impact will be mitigated through the implementation of Mitigation Measure BIO-MM-4, which may require removal of SMHM habitat and placement of barrier fencing to prevent SMHM from entering the construction area.

Implementation of **BIO-MM-4** has been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-4. Remove Salt Marsh Harvest Mouse Habitat and Place Barrier Fencing in the Immediate Vicinity of Operating Equipment. The salt marsh harvest mouse is a fully protected, listed state species and a listed federal species. A Biological Opinion, as described above under the federal Endangered Species Act, must be obtained from the U.S. Fish and Wildlife Service (USFWS), through preparation of a Biological Assessment and a Section 7 consultation prior to the start of restoration activities. SLT shall consult with USFWS and the California Department of Fish and Wildlife to evaluate appropriate methods for

avoiding construction-related mortality of salt marsh harvest mice. Measures to avoid impacts to salt marsh harvest mice may include the following:

- systematic removal of pickleweed habitat to eliminate any potential habitat and to aid visual location of the species if they have not already passively relocated out of the construction zone (pickleweed in tidal marshes is habitat for salt marsh harvest mice), and
- subsequent placement of a 3-foot or greater barrier fence in which the bottom will be buried 4 inches or more below grade. The fence will be placed 20 feet outside the boundaries of the construction areas in and adjacent to coastal salt marsh habitat to prevent harvest mice from entering the construction area.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-7

Impact: **BIO-7. Potential for Construction- Related Impacts to California Clapper Rails and California Black Rails.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

California clapper rails and California black rails could be harmed or suffer disturbance as a result of construction activities in tidal marsh habitat. This impact will be mitigated through the implementation of Mitigation Measure BIO-MM-5 that requires that disturbance to California clapper rail and Black rail habitat be avoided during their breeding period or by complying with USFWS protocols to identify the location of rails and maintain setbacks from breeding clapper rails.

Implementation of **BIO-MM-5** has been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-5. Avoid Operation of Equipment in the Outboard Coastal Tidal Marsh During the Breeding Period of the California Clapper Rail and California Black Rail. Because California clapper rails and California black rails are known to occur adjacent to the Project site and restoration activities will occur in suitable habitat areas, a Biological Opinion, as described above under the federal Endangered Species Act, must be obtained from the U.S. Fish and Wildlife Service (USFWS), through preparation of a Biological Assessment and a Section 7 consultation prior to the start of restoration activities. Measures to avoid and minimize impacts to California clapper rails and California black rails may include the following:

- To minimize or avoid the loss of individual rails, activities within or adjacent to tidal marsh areas will be avoided during the rail breeding season from February 1 through August 31 each year unless surveys are conducted to determine if rail locations and rail territories can be avoided, or the marsh is determined to be unsuitable rail breeding habitat by a qualified biologist.
- If breeding rails are determined to be present, activities will not occur within 700 feet, or greater, if a biologist determines potential impacts. If the intervening distance across a major slough channel or across a substantial barrier between the clapper rail calling center and any activity area is greater than 200 feet, then it may proceed at that location within the breeding season if a biologist determines the distance is sufficient and there are no impacts on rail behavior.
- If rails are located, Sonoma Land Trust shall consult with USFWS and the California Department of Fish and Wildlife to determine what, if any, additional mitigation measures may be required to allow construction to proceed.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-9

Impact: **BIO-9. Non-Special-Status Birds.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Various bird species could be affected by Project construction. To the degree feasible, restoration construction activities will be conducted during the non-breeding season (generally September 1 through January 30) for potentially affected bird species, or nesting surveys and any necessary buffers will be implemented if construction activities cannot be avoided during the nesting season. This impact will be mitigated by implementation of the measures as described in Mitigation Measure BIO-MM-7.

Implementation of **BIO-MM-7** has been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-7. Avoid Construction during the Nesting Season or Conduct Pre-Construction Nesting Bird Survey and Avoid and Protect Active Nests. To avoid removing or disturbing any active white-tailed kite, northern harrier, short-eared owl, tricolored blackbird, San Pablo song sparrow, and saltmarsh common yellowthroat nests or other non-special status migratory bird nests, restoration construction activities shall be conducted during the non-breeding season (generally September 1 through January 30) for these species to the degree feasible.

- If construction activities cannot be avoided during the nesting season (generally between February 1 and August 31), and appropriate nesting substrates are identified for special-status species and other migratory bird species, a preconstruction survey will be conducted by a qualified biologist to determine if there are active nests onsite.
- The survey will be conducted a minimum of 3 separate days during the 14 days prior to construction. The survey area shall include all areas within 300 feet of Project activities, including off-site areas that may be affected by Project activities.
- If the biologist determines that the area surveyed does not contain any active nests, then construction activities can commence without any further mitigation. If active nests are found, the California Department of Fish and Wildlife (CDFW) will provide and Sonoma Land Trust shall implement specific guidance on the types of activities and necessary buffer zones that may be required.
- If more than 14 days pass between the survey dates and the initiation of construction, another survey will be conducted.
- Nest protection buffers and other measures shall remain in place until all young have fledged.
- If a lapse in Project-related work of 15 days or longer occurs, another focused survey and if required, consultation with CDFW, shall be conducted before Project work is reinitiated.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-11

Impact: **BIO-11. Potential Loss of California Red-Legged Frog Individuals.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

California red-legged frog has been documented in drainages on the north side of Highway 37, which may provide suitable breeding habitat, although breeding was not documented. They may occur in other seasonal wetlands onsite and may use adjacent uplands as dispersal sites. This impact will be mitigated by the measures as described in Mitigation Measure BIO-MM-9. Measures will be implemented to avoid the loss of individuals and enhance the habitat.

Implementation of **BIO-MM-9** has been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-9. Minimize and Avoid Impacts to California Red-Legged Frog.

Because California red-legged frogs are known to occur onsite and restoration activities will occur in suitable habitat areas, a Biological Opinion authorizing incidental take, as described above under the federal Endangered Species Act, must be obtained from the USFWS, through preparation of a Biological Assessment and a Section 7 consultation prior to the start of restoration activities. Measures to avoid and minimize impacts to California red-legged frog may include the following:

- All grading activity within suitable aquatic and associated upland habitat (within 300 feet of aquatic habitat) shall be conducted during the dry season, between May 1 and October 15, or before the onset of the rainy season, whichever occurs first unless exclusion fencing is utilized. Construction that commences in the dry season may continue into the rainy season if exclusion fencing is placed between the construction area and the suitable habitat to keep frogs from entering the construction area.
- The footprint of all ground-disturbing activities within suitable habitat shall be the minimum area necessary for construction.
- SLT shall retain a qualified wildlife biologist to conduct preconstruction clearance surveys no more than 24 hours before ground disturbance in aquatic and upland habitats and conduct ongoing monitoring of construction within suitable aquatic and upland habitats.
- A USFWS approved biological monitor shall remain onsite during all activities within suitable aquatic and associated upland habitat (as defined above). During dredging and vegetation removal, the monitor shall examine all material removed for the presence of frogs. If a California red-legged frog is found, it will be removed from the material by a USFWS-approved biologist and placed in suitable habitat outside of the construction area.
- All food and food-related trash shall be stored away from sensitive areas and enclosed in sealed trash containers at the end of each workday. Food-related trash removal will occur no less than every 3 days.
- No pets shall be allowed on the construction site.
- Speed limits of 15 miles per hour shall be maintained on dirt roads and other access areas.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-14

Impact: **BIO-14. Potential Impacts to Northwestern Pond Turtle.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Although northwestern pond turtle is not known to occur within the action area, Tolay Creek likely provides suitable nesting habitat for this species, which, if present, have the potential to be affected by the construction of Breach 2, and possibly Breaches 3 and 4 if construction of these breaches is required as adaptive management. This impact will be mitigated by implementing the measures described in BIO-MM-10. Before breaching activities in Tolay Creek are initiated, a qualified biologist will conduct a survey for northwestern pond turtles. If turtles are found, measures will be taken to move them out of the work area and to exclude individuals from the work area to avoid the loss of individuals.

Implementation of **BIO-MM-10** has been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-10. Conduct Preconstruction Survey for Northwestern Pond Turtle and Construct Exclusion Fencing, if Needed. In April or May, before breaching activities in Tolay Creek are initiated, a qualified biologist shall conduct a survey for northwestern pond turtles along Tolay Creek. The survey will encompass the breaching area and an area 0.25 mile upstream and downstream of this area. The purpose of this survey is to determine whether turtles are using the creek during the period when they are most likely to be observed. If turtles are observed, measures “a” and “b” below will be implemented. If turtles are not observed, only measure “b” will be implemented.

- a. If Northwestern pond turtles are observed during the spring survey, fences will be constructed upstream and downstream of the construction area to prevent turtles from entering the construction area. The fences will be constructed 150 feet upstream and downstream beyond the limit of breaching. The fences will be perpendicular to the creek. If turtles are observed within the fenced area, the turtles shall be moved downstream of the construction area, outside the barrier fences, by a qualified biologist in accordance with requirements from the CDFW before construction begins. Turtles will be excluded from the construction area between July and October to prevent them from seeking hibernation sites within the construction area. Fencing will be left in place during the entire time when construction is occurring outboard of existing perimeter levees.

- b. Before excavation occurs for the breaches to Tolay Creek, a qualified biologist will conduct a preconstruction survey for Northwestern pond turtles within the proposed work area. This survey will be conducted 24 hours before construction activities begin. If a turtle is found within the construction area, the biologist will try to passively move the turtle downstream of the area or outside of the barrier fence, if constructed (see “a” above). If barrier fences have not been installed, the biologist will return to the breach site the following day to ensure that the turtle has not moved back into the area.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-16

Impact: **BIO-16. Potential for Construction- Related Water Quality Effects on Special-Status Fish Species.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Water quality impacts from construction and dredging have the potential to impact fish species. Measures will be implemented to avoid water quality impacts as described in Mitigation Measure WQ-MM-1, which requires compliance with regulatory agency construction permit conditions to protect beneficial uses of water resources and Mitigation Measure WQ-MM-3, which requires dredging water quality monitoring and controls.

Implementation of **WQ-MM-1 and WQ-MM-3** have been incorporated into the Project to reduce this impact to a less-than-significant level.

Refer to the Water Quality section above for **WQ-MM-1** and **WQ-MM-3** mitigation text.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-17

Impact: **BIO-17. Potential for Construction- Related Mortality of Special- Status Fish Species.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Excavating Breaches 1 and 2, lowering the perimeter levee, dredging the Connector Channel, and constructing Breaches 3-4 to Tolay Creek if required by the Adaptive Management Plan, could result in impacts to special-status fish species if individuals are present when construction occurs. Implementation of Mitigation Measure BIO-MM-12 would mitigate the potential impacts to special-status fish species by restricting construction to months when juvenile salmonids and juvenile long fin smelt will not be present and requiring use of silt curtain for any dredging associated with any breaches on Tolay Creek. Green sturgeon and adult longfin smelt are expected to occur during any month of the year in San Pablo Bay, and conservation measures would be implemented to ensure that entrainment of these species is minimized during dredging.

Implementation of **BIO-MM-12** has been incorporated into the Project to reduce this impact to a less-than-significant level.

BIO-MM-12. Avoid Construction in Tidal Aquatic Habitats when Rearing Salmonids and Longfin Smelt could be Present; Utilize Silt Curtains for Dredging to Minimize Entrainment. Sonoma Land Trust (SLT) shall, to the extent feasible, avoid construction activities that could affect tidal aquatic habitats (e.g., construction associated with lowering the perimeter levee and excavating tidal channels through the outboard salt marsh) during periods when rearing juvenile salmonids, and juvenile longfin smelt could be present (typically November thru June).

- If construction activities must occur during periods when these species could be present, SLT shall consult with the National Marine Fisheries Service (NMFS) and the CDFW to determine what, if any, additional conservation measures may be required to allow construction to proceed.
- Any dredging associated with the breaches to Tolay Creek shall be done within silt curtains to minimize the potential entrainment of green sturgeon. If hydraulic dredging is utilized to excavate the Connector Channel and Breach 1, then the associated pump size would be limited to no more than 10 inches in order to restrict the approach velocity to a level unlikely to entrain green sturgeon in the area.
- To minimize the potential of taking longfin smelt, the following minimization measures shall be implemented: dredging may proceed anywhere when water temperature exceeds 22 degrees Celsius, and if water temperature is less than 22 degrees Celsius, no dredging shall occur in water less than 2 parts per thousand [salinity] between December 1 and June 30; downstream of the 2 parts per thousand salinity contour the dredge shall be primed and cleared within 3 feet of the bottom between December 1 and June 30 and within three feet of the surface between July 1 and November 30, and dredge operation in the water column above the substrate shall be minimized.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

4. HAZARDOUS SUBSTANCES AND WASTE

CEQA FINDING NO. HAZ-1

Impact: **HAZ-1. Accidental Release of Fuels and Lubricants during Construction.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

The potential for accidental releases of small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) will be mitigated through the implementation of Mitigation Measure HAZ-MM-1. This measure will minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction of the Project.

Implementation of **HAZ-MM-1** has been incorporated into the Project to reduce this impact to a less-than-significant level.

HAZ-MM-1. Prepare and Implement a Spill Prevention, Control, and

Countermeasure Program for Construction Activities. As part of compliance with the National Pollutant Discharge Elimination System General Construction Permit, a Hazardous Material Spill Prevention Control and Countermeasure Plan shall be prepared for the use of construction equipment for the Project, and shall minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction of the Project. This plan shall describe storage procedures and construction site housekeeping practices and identify the parties responsible for monitoring and spill response. The measures and monitoring procedures required under the General Construction Permit shall minimize the potential for release of hazardous materials to the environment. Sonoma Land Trust (SLT) shall routinely inspect the action area to verify that the best management practices specified in the plan are properly implemented and maintained, and immediately notify the contractor if there is a noncompliance issue and shall require compliance.

- The federal reportable spill quantity for petroleum products, as defined in the Environmental Protection Agency's CFR (40 CFR 110) is any oil spill that (1) violates applicable water quality standards, (2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or (3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.
- If a spill is reportable, the contractor's superintendent shall follow the guidelines in the plan. A written description of reportable releases shall be submitted to the Regional Water Quality Control Board (RWQCB). This

submittal shall include a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases.

- If a reportable spill has occurred and results determine that Project activities have adversely affected surface or groundwater quality in excess of water quality standards, a detailed analysis shall be performed to identify the likely cause of contamination. This analysis shall conform to American Society for Testing and Materials (ASTM) standards, and shall include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, SLT and/or their contractors shall select and implement measures to control contamination. These measures shall be subject to approval by the Sonoma County Department of Environmental Health and California Department of Toxic Substances Control.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. HAZ-4

Impact: **HAZ-4. Potential Exposure of Humans, Plants, or Wildlife to Hazardous Chemicals Contained in Dredged Material - Dredging and Material Placements and Activities.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

The process of dredging material from the Connector Channel may disturb and redistribute contaminants that have been previously buried or otherwise sequestered in sediments. Once disturbed, these contaminants may become biologically available in sediments and the water column and could exert toxic effects on organisms that come in contact with them. Materials that are reused on-site could also come into contact with the water column or biota once the site is breached. This impact will be mitigated by Mitigation Measure HAZ-MM-4, which requires dredged material sampling and reuse/disposal in accordance with requirements set forth by the Dredged Materials Management Office.

Implementation of **HAZ-MM-4** has been incorporated into the Project to reduce this impact to a less-than-significant level.

HAZ-MM-4. Sampling and Reuse/Disposal of Dredged Materials Based on DMMO Protocols.

- Sonoma Land Trust shall sample and test sediments proposed to be dredged for chemical constituents of concern and for toxicity using protocols acceptable to the San Francisco Dredged Material Management Office (DMMO).
- The DMMO will evaluate the adequacy of the sampling and testing and the acceptability of the dredged material for reuse at proposed sites in the restoration area for beneficial reuse as either wetland foundation or surface material.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

5. AIR QUALITY

CEQA FINDING NO. AQ-1

Impact: **AQ-1. Increase in Criteria Pollutant Emissions as a result of Construction.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Construction activities may increase emissions of criteria air pollutants, especially during earthmoving activities. This impact will be mitigated through Mitigation Measure AQ-MM-1, which requires implementation of Bay Area Air Quality Management District measures to the degree feasible to control PM10 emissions during construction and additional measures to limit combustion pollutant emissions to address particulate matter (PM2.5) exposure from diesel.

Implementation of **AQ-MM-1** has been incorporated into the Project to reduce this impact to a less-than-significant level.

AQ-MM-1. Implement Bay Area Air Quality Management District (BAAQMD) best management practices (BMPs) to Reduce Emissions of PM10. To control the generation of construction-related PM10 emissions, Sonoma Land Trust shall incorporate the BAAQMD BMP measures to the degree feasible to ensure emissions are reduced as much as possible. These measures include the following:

- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.

- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles.
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- Limit the area subject to excavation, grading and other construction activity at any one time.

In addition, the construction contracts shall include measures to reduce combustion pollutants to address particulate matter (PM2.5) exposure from diesel engines consistent with the 2010 BAAQMD California Environmental Quality Act guidelines where feasible. The contractor shall be required to submit an inventory of equipment to confirm compliance with the Level 3 abatement device requirements of the California Air Resources Board. In addition mitigation may include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, reduction in idling time, add-on devices such as particulate filters, and/or other options as they become available.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

6. NOISE

CEQA FINDING NO. N-2

Impact: **N-2. Permanent Increases in Ambient Noise Levels Following Construction.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

With the extension of the Bay Trail through the Project site, recreational users would have trail access to locations immediately adjacent to the new 160 horsepower storm water pumps. These pumps would operate frequently during the winter season and

less so during the remainder of the year. Recreational trail use is transitory and occurrences of exposure to elevated noise levels would be infrequent. Implementation of Mitigation Measure N-MM-1, which requires meeting County noise standards, will mitigate this impact.

Implementation of **N-MM-1** has been incorporated into the Project to reduce this impact to a less-than-significant level.

N-MM-1. Design Facility to Reduce Noise Levels. Sonoma Land Trust (SLT) shall employ measures to reduce noise from operational pumps near adjacent segments of the Bay Trail. Treatments to reduce noise may include, but are not limited to: constructing enclosures around equipment, installation of noise absorptive treatments and other noise insulating materials, and locating equipment away from noise sensitive uses. Measures would be designed so that applicable County noise standards are met. SLT shall retain a qualified acoustical professional to determine that the treatments are sufficient to reduce sound levels at adjacent segments of the trail.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

7. CULTURAL RESOURCES

CEQA FINDING NO. CR-1

Impact: **CR-1. Damage or Destruction of Archaeological Resources.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Although no cultural resources have been identified at the Project site, the potential exists that buried archaeological resources (which may meet the definition of historical resource or unique archaeological resource) are present in the Project area. Although unanticipated, there is also always the possibility that Native American remains may be unearthed. Damage to or destruction of such resources would be a significant impact. Implementation of Mitigation Measures CR-MM-1a, MM-CR-1b, and Mitigation Measure CR-MM-1c will mitigate this impact..

Implementation of **CR-MM-1a and 1b** have been incorporated into the Project to reduce this impact to a less-than-significant level.

CR-MM-1a. Conduct Pre- Construction Cultural Resources Surveys and Required Consultation for any Areas that Have Not Previously been Surveyed. If any activities requiring earthmoving or removal of existing

structures will occur in areas that have not previously had a cultural resources field survey, Sonoma Land Trust (SLT) shall consult with knowledgeable experts to determine whether an intrusive survey is required and conduct any needed survey prior to construction, or retain a qualified professional to conduct or oversee near-shore monitoring during construction. SLT shall also complete any necessary consultation with State Historic Preservation Office and implement any necessary protective measures.

CR-MM-1b. Stop Work if Buried Cultural Resources are Discovered

Inadvertently. If buried cultural resources, such as chipped or ground stone, large quantities of shell, historic debris, or building foundations are discovered inadvertently during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with Sonoma Land Trust, other agencies, and Native American representatives as appropriate. All construction workers involved in earthmoving activities shall receive training to help them recognize the presence of cultural artifacts.

CR-MM-1c. Stop Work if Human Remains are Encountered during

Construction Activities. If human skeletal remains are encountered, the county coroner shall be contacted immediately. If the county coroner determines that the remains are Native American, the coroner will then be required to contact the Native American Heritage Commission (NAHC) (pursuant to Section 7050.5 (c) of the California Health and Safety Code) and the County Coordinator of Indian Affairs. A qualified cultural resources specialist also shall be contacted immediately. If any human remains are discovered in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- the county coroner has been informed and has determined that no investigation of the cause of death is required; and
- if the remains are of Native American origin,
 - the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or
 - the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

8. ENVIRONMENTAL JUSTICE

CEQA FINDING NO. EJ-1

Impact: **EJ-1. Temporary or Permanent Effects on Minority or Low- Income Groups in the Project Vicinity.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Impacts to populations around San Pablo Bay could occur indirectly due to changes in water quality (especially as it relates to fishing). A potential environmental justice impact may result if fish, which are relied on as a major food source for subsistence harvesting, experience increased toxicity due to Project-related changes in water quality. The construction of the Project has the potential to temporarily increase methyl mercury concentrations levels in a small, localized area due to the disturbance of sediments during construction and placement of dredge material in the tidal restoration area. As discussed in Section 3.3 of the Final EIR/EIS, Water Quality, and as required by Mitigation Measure HAZ-MM-5, dredged materials would be tested for possible contamination, including mercury levels that may be elevated beyond ambient levels. Mitigation Measures WQ-MM-1, WQ-MM-2 and WQ-MM-3 will also be implemented to protect water quality.

Implementation of **HAZ-MM-5, WQ-MM-1, WQ-MM-2, and WQ-MM-3** have been incorporated into the Project to reduce this impact to a less-than-significant level.

See **HAZ-MM-5, WQ-MM-1, WQ-MM-2, and WQ-MM-3**, above, for the full text of each measure.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.