File No.: 16-0113

Agenda Date: 3/22/2016
Item No.: 6.1.

BOARD AGENDA MEMORANDUM

SUBJECT:
South San Francisco Bay Shoreline Phase I Study - Resolution Certifying the Final Environmental Impact Report and Adopting Findings of Fact, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program; and Approving the Project.

RECOMMENDATION:

A. Consider the environmental effects of the South San Francisco Bay Shoreline Phase I Study as presented in the Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report and the Errata to the Integrated Document;
B. Adopt a RESOLUTION CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT AND ADOPTING FINDINGS OF FACT, STATEMENT OF OVERRIDING CONSIDERATIONS, AND MITIGATION MONITORING AND REPORTING PROGRAM FOR THE SOUTH SAN FRANCISCO BAY SHORELINE PHASE I STUDY; and
C. Approve the Project.

SUMMARY:
Background

The area between Alviso Slough and Coyote Creek has considerable risk for tidal flooding due to its low lying terrain protected by non-engineered dikes. The flood risk will substantially increase over the next several decades due to sea level rise. In addition to flood risk, the past creation of commercial salt harvesting ponds along southern San Francisco Bay has resulted in a loss of most of the tidal salt marsh habitat within the Study Area. These local tidal marsh losses are in addition to San Francisco estuary-wide losses of approximately 90 percent of all tidal wetlands.

The United States Army Corps of Engineers (USACE), the U.S. Fish and Wildlife Service (USFWS), the District, and the California State Coastal Conservancy (CSCC) have jointly prepared the *Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report* (Integrated Document) for the South San Francisco Bay Shoreline Phase I Study (Project). The Project would provide tidal flood protection to the community of Alviso and infrastructure between Alviso Slough and Coyote Creek. The flood protection levee will allow approximately 2,900 acres of former salt ponds to be restored to tidal marsh by breeching levees to San Francisco Bay. The new levees will be used as a trail and include connection to the Bay Trail network with viewing platforms, interpretive signs, and benches.

Project Description

The proposed Project includes the construction of an engineered levee, restoration of Ponds A9-15 and A18, and the creation of new recreation features. The new levee would be constructed up to an elevation of 15.2 feet along existing salt pond berms - the eastern border of Pond A12 and southern borders of Ponds A13, A16, and A18. Additional flood risk management features include a flood gate for the Union Pacific Railroad crossing and a tide gate closure system at Artesian Slough. Restoration at Ponds A9-A15 and A18 will consist of breaching existing salt pond berms, guided by results of monitoring and adaptive management from other South Bay restoration activities, to establish tidal connection with San Francisco Bay. A 30:1 ecotone will be built adjacent to the levee in Ponds A12, A13 and A18, which will provide transitional habitat for endangered species. Recreation features include two pedestrian bridges, access to an unpaved trail on the improved levees, connection of the new levee trail to the Bay Trail network, and viewing platforms, interpretive signs, and benches.

Integrated Document Preparation and Public Review Process

The environmental analysis in the Integrated Document was prepared pursuant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) with the USACE and USFWS as the NEPA lead agencies and the District as the CEQA lead agency. The Draft Integrated Document was released for agency and public review on December 18, 2014. The 45-day public review period was extended an additional 21 days to February 23, 2015.

Forty comment letters were received on the Draft Integrated Document, including 17 from federal, state, and local agencies; 2 from for-profit businesses (Cargill and PG&E); 12 from non-governmental organizations; and 9 from individuals. All comments on the Draft Integrated Document were considered and evaluated. Written responses to all comments on the Draft Integrated Document are included in Appendix I of the Final Integrated Document.

Summary of Environmental Impacts

Attachment 1 provides a summary of the impact analysis conclusions from the Integrated Document. The Integrated Document concludes that the Project would result in significant impacts on hydrology, water quality, biological resources, hazards and hazardous materials, air quality, noise, and cultural resources. Most of these significant environmental impacts are short term impacts relating to construction. For each significant impact identified in the Final EIR, feasible mitigation measures are proposed to either avoid or minimize or otherwise mitigate for the impacts. The majority of these significant impacts were determined to be less than significant after implementation of the mitigation measures. However, three environmental impacts would remain significant despite implementation of feasible mitigation measures. These impacts, which are described in more details below, are considered significant and unavoidable.

1) As described in Section 4.10.2.3.2, emissions of nitrogen oxides (NOx) and reactive organic gas (ROG), precursors to ozone, during project construction would exceed significance

thresholds established by the Bay Area Air Quality Management District (BAAQMD). Because the bay area air basin is in non-attainment of the National Ambient Air Quality Standards for ozone, emissions of NOx and ROG exceeding thresholds established by the BAAQMD would contribute substantially to an existing air quality violation. Mitigation Measures M-AIR-1a and M-AIR-1b require the contractor to achieve a project-wide fleet reduction of at least 20 percent for NOx reduction and 45 percent for particulate matter reduction compared to the most recent state Air Resources Board fleet average; and require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and ROG. However, the reduction would not be sufficient to reduce project emissions to below the BAAQMD significance thresholds.

2) The Project will result in the loss of a substantial amount of human-created managed pond habitat that is used by managed-pond-specialist waterbirds (such as eared grebe, Wilson's phalarope, red-necked phalarope, and Bonaparte's gull) for foraging and roosting. Over time all the ponds in the study area would be converted. The South Bay Salt Ponds Restoration Project and other tidal restoration projects in south bay have been restoring other managed ponds to tidal influence. Cumulatively there would be a substantial loss of managed ponds in the Alviso pond complex. Due to the scale of the Project relative to other projects, the incremental impact of the Project would be considered cumulatively considerable. This impact could only be mitigated by replacing pond habitat being converted to tidal marsh. The conversion of other habitat to pond would be inconsistent with the objectives of the project, so no measures are available to lessen this impact. Adaptive management will help manage long-term populations. The adaptive management plans are designed to minimize significant impacts to pond-specialist birds, but given the long-term uncertainty of population trends the impact is still considered significant.

3) Finally, as described in Section 4.13.2.3.2, noise impacts would be limited to the immediate vicinity of the Project. Other adjacent future construction activities that could occur include the South Bay Salt Ponds Restoration Project Phase II and development consistent with the Wastewater Facility's Master Plan. Ongoing noise sources in the Project vicinity include traffic noise associated with local roads, railroad, and airport. Construction activities associated with other projects would be required to comply with applicable noise standards and mitigate for significant impacts if any. Further, it is unlikely that the Project construction would be concurrent with either the South Bay Salt ponds Restoration Project or the Wastewater Facility construction. However, because of the proximity of residential uses to area roads, airport, Union Pacific Railroad track, and wastewater facility, cumulative noise impacts experienced by people in Alviso could be significant, particularly if Project construction activity is concurrent with other construction activity. Truck delivery and regular construction work hours would be restricted from 9 am to 3 pm (AMM-NOI-1) and the contractor will be required to implement practices to minimize disturbances to the neighboring residents (AMM-NOI-3). Mitigation measure M-NOI-1 would further reduce the incremental contribution of the project to overall noise in the area, but given all potential concurrent noise sources, the cumulative impact would remain significant.

Errata to the Final Integrated Document

After the USACE released the Final Integrated Document in December 2015, District staff noted some errors in Chapter C.0, *California Environmental Quality Act Summary* of the Final Integrated Document. Specifically, a few entries in Table C.3-1, Summary of Project Impacts, do not accurately reflect the information provided in the environmental analysis sections of the Final Integrated Document. Thus, staff has prepared an Errata (Attachment 2) for the Board to consider along with and as a part of the Final Integrated Document before deciding whether to certify the Final EIR and approve the Project.

Statement of Overriding Considerations

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. When a lead agency approves a project which will result in significant effects which are identified in a Final EIR but are not avoided or substantially lessened, the agency must adopt a statement of overriding considerations (CEQA Guidelines, section 15093).

The Project would provide tidal flood protection benefits to a population of approximately 6,000 residents and people working in the area. A structure inventory identified 1,140 structures (1,034 residential, 54 commercial, 42 industrial, and 9 public), transportation corridors, the wastewater treatment plant, and other critical infrastructure in the floodplain. In addition, the area has lost substantial amounts of coastal wetlands. The Project would create approximately 2,900 acres of tidal marsh habitat and ecotone, thereby restoring ecological structure and function, area, and connectivity. The Project includes an ecotone transitional habitat feature, which would be constructed bay-ward to the proposed levee. Currently in San Francisco Bay wetland-upland transition zones have largely disappeared from marshes. These features mimic the natural landform that once existed around the perimeter of San Francisco Bay and provide the functions of a distinct habitat that is now largely absent along southern San Francisco Bay. These habitat areas serve as high-tide refugia for threatened and endangered species and also provide habitat for a unique suite of plant species. The ecotone also would allow inland migration of the restored marshes in response to sea level change.

The recreational benefits provided by the proposed Project include enhanced outdoor recreational opportunities and improved access to the Refuge and adjacent restored marsh areas for tourists and residents. The proposed recreation features are estimated to increase the annual number of visitors to the Refuge by 20 percent and would create key connections in the San Francisco Bay Trail.

FINANCIAL IMPACT:
The estimated cost for construction of the Project is $174 million. The District's share of the construction cost is $44 million for the flood risk management elements and part of the recreation elements. If the Board approves this Project, the District's cost will be funded partially by Fund 26, the Safe Clean Water (SCW) Measure Fund, which has $16.7M available for this project. The

remaining funds may come from the San Francisco Bay Restoration Authority June 2016 ballot measure, if passed, grants and/or cost savings from other SCW projects.

CEQA:
A Final Integrated Document that meets the requirements of an EIR under CEQA has been prepared for the Project and is before the Board for certification. The Final Integrated Document is available for the Board and public review at the Clerk of the Board's office and on the District's website (<http://www.valleywater.org/PublicReviewDocuments.aspx>).

ATTACHMENTS:
Attachment 1: California Environmental Quality Act Summary
Attachment 2: Errata to Final Environmental Impact Report
Attachment 3: Resolution

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C.0 California Environmental Quality Act Summary

C.1 Summary

This document includes an Environmental Impact Report (EIR) analyzing the environmental effects of the Shoreline Phase I Project. The project would provide tidal flood protection between Coyote Creek and the Guadalupe River, allow for the restoration of approximately 2,000 acres of former salt ponds to tidal marsh, and allow for recreational features.

This EIR has been prepared in compliance with the California Environmental Quality Act (CEQA) to provide an objective analysis to be used by the CEQA lead agency (the Santa Clara Valley Water District, or SCVWD), as well as other agencies and the public, in their considerations regarding the implementation, rejection, or modification of the project as proposed. The EIR itself does not determine whether the project will be implemented or not; it serves only as an informational document in the local planning and decision-making process. The purpose of the EIR process is to develop and assess a recommended plan and alternatives for the project and to avoid and mitigate significant adverse effects on environmental resources while aiming to achieve the primary project objectives.

C.2 Proposed Project

The SCVWD's preferred alternative, which is the Locally Preferred Plan (Alternative 3), would include engineered levees along the western and northern outer levees of New Chicago Marsh along the existing margins of Ponds A12, A13, and A16 (Alviso North alignment) and would follow the San José–Santa Clara Regional Wastewater Facility (Wastewater Facility) levee that runs west to east in a stair-step pattern along the north border (Water Pollution Control Plant South alignment) to protect against the 1-percent annual chance of exceedance tidal event with anticipated sea level change; a tide gate closure system across Artesian Slough; restoration of Ponds A9, A10, A11, A12, A13, A14, A15, and A18; a transitional habitat slope of 30:1 in Ponds A12/A13 and A18; multi-use trails on top of the new proposed flood risk management levee with connection to the Bay Trail network; viewing platforms and benches; and trail upgrades to be made to an existing segment of the Bay Trail system along State Route 237.

The flood-protection components would be constructed between 2018 and 2021. Restoration of the ponds and recreation elements would take place between 2020 and 2031 with monitoring and adaptive management occurring throughout the period.

C.3 Anticipated Environmental Impacts

Table C.3-1 *Summary of Project Impacts* summarizes the project's potential for impacts on the environment and a list of avoidance and minimization measures that would be implemented as part of the project, along with the mitigation measures identified to avoid or minimize identified significant impacts. For a complete description of potential impacts and recommended mitigation measures, please refer to the specific discussions in Chapter 4 *Existing and Future Conditions / Affected Environment, Environmental Consequences, and Mitigation Measures*.

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
GEO-1: Expose People or Structures to Potential Substantial Adverse Effects During Seismic Events	AMM-GEO -1: Public warning signs AMM-GEO-3: Levee Design	~~S~~ LTS	~~M GEO-1: Worker Seismic Safety~~ None	LTS
GEO-2: Expose people or structures to tsunami or seiche	AMM-GEO -1: Public warning signs AMM-GEO-4: Stop Work After Seismic Activity	LTS	None	LTS
GEO-3: Result in substantial soil erosion or the loss of topsoil in or adjacent to the study area	AMM-GEO-2: Reuse soils AMM-GEO-5: Channel Tidal Flow AMM-GEO-6: Prepare SWPPP	LTS	None	LTS
LND-1: Physically divide the community of Alviso		NI	None	NI
LND-2: Conflict with land use policies	AMM-LND-1: Minimize Disturbance AMM-LND-2: Removal Materials	LTS (Alt 2,3) S (Alt 4, 5)	None (Alt 2,3) M-LND-2: New Chicago Marsh Protection (Alt 4) None Available (Alt 5)	LTS (Alt 2,3,4) S (Alt 5)
LND-3: Conflict with the adopted Santa Clara Valley Habitat Plan	AMM-LND-1: Minimize Disturbance AMM-LND-2: Removal Materials	LTS	None	LTS
HYD-1: Alter existing drainage patterns in a manner that would result in scour that could cause substantial erosion or siltation	None	S	M-HYD-01a: levee maintenance will be adjusted or levee improvements implemented If excessive scour occurs of the levee crown or sides. M-HYD-01b: Fabric and/or rock armoring will be installed for excessive scour at the levee toe. M-HYD-01c: Develop and implement plan to protect UPRR bridge crossing of Coyote Creek	LTS
HYD-2: Increase the risk of flooding that could cause injury, death, or substantial property loss	AMM-HYD-1: Flood Warnings	B	None	B
HYD-3: Conduct excavation activities, fill placement, construction dewatering, and structure building in a manner that could affect adjacent existing levees (geotechnical issues)	None	LTS	None	LTS
HYD-4: Place non-flood risk hazard reduction structures within the 1-percent ACE flood hazard area that would impede or redirect flood flows	None	NI	None	NI

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
WAT-01 violate any water quality standard or waste discharge	AMM-WAT-1: Staging Area AMM-WAT-2: Fuel Management Plan AMM-WAT-4: Pond Construction Timing AMM-WAT-5: Hazardous Spill Plan AMM-WAT-6: Seasonal Restrictions AMM-WAT-7: Minimize Footprint AMM-WAT-8: Clean Equipment AMM-WAT-9: Site Maintenance AMM-WAT-11: Protect Hazardous Sites AMM-WAT-12: Use of On-Site Material AMM-WAT-14: Water Quality Parameters AMM-WAT-15: Water Quality Baseline AMM-WAT-19: Minimize In-water Construction AMM-WAT-20: Turbidity Control AMM-WAT-21: Stormwater Runoff Control AMM-WAT-22: Stormwater Management Plan AMM-WAT-23: Use of Clean Fill AMM-WAT-24: Prepare SWPPP AMM-WAT-25: No Treated Wood AMM-WAT-26: Equipment Staging and Fueling AMM-WAT-27: Hazardous Spill Plan AMM-WAT-28: Prevent Equipment Leaks AMM-WAT-29: Stabilize Construction Areas AMM-WAT-30: Invasive Plant Prevention			
• Turbidity around breaches	AMM-WAT-3: Turbidity Management Plan AMM-WAT-10: In-Stream Sediment Control	LTS	None	LTS
• Increased water temperature	None	LTS	None	LTS
• Metals	None	LTS	None	LTS
• Salinity effects on waters near Ponds A12, A13, and A15	None	S	M-WAT-1a: Salinity Control	LTS
• Reduced DO levels in Pond A12	AMM-WAT-16: Dissolved Oxygen	S	M-WAT-1b: Dissolved Oxygen Control.	LTS
• Long-term suspension and mobilization of mercury-laden sediments and greater levels of MeHg	AMM-WAT-17: Mercury in Sentinel Species	LTS	None	LTS
• Algae composition	AMM-WAT-18: Control of Nuisance Algae	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
WAT-2: Substantially alter existing drainage patterns	AMM-WAT-13: Sediment Accretion Areas	LTS	None	LTS
ABR-1: Substantial adverse effect on any special-status species	AMM-ABR-1: Seasonal Restrictions AMM-ABR-2: Biological Monitor AMM-ABR-3: Vibratory Piling AMM-ABR-4: In Water Sediment Control AMM-ABR-5: Screen Pumps AMM-ABR-7: Notification of Mortality Events AMM-ABR-8: Adequate Depth of Channels AMM-ABR-9: Salvage Natural Materials AMM-ABR-10: Prepare SWPPP AMM-ABR-11: Biological Monitoring AMM-ABR-12: Water Structure Materials AMM-WAT-27: Hazardous Spill Plan AMM-WAT-28: Prevent Equipment Leaks	LTS	None	LTS
ABR-2: Conflict with the provisions of the Santa Clara Valley Habitat Plan	None	NI	None	NI
TBR-1: Effects on sensitive natural communities	None	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
TBR-2: Effects on special status species	AMM-TRB-1: Notification of Mortality AMM-TRB-2: Seasonal Restrictions AMM-TRB-3: Conduct Preconstruction Surveys AMM-TRB-4: Stage Outside Sensitive Habitats AMM-TRB-5: Minimize Footprint AMM-TRB-6: Install Exclusionary Fencing AMM-TRB-7: Biological Monitor AMM-TRB-8: Restore Disturbed Areas AMM-TRB-12: Worker Awareness AMM-TRB-13: Closure of Trails for Bird Species AMM-TRB-14: Interpretive Signs AMM-TRB-15: No Dogs in Refuge AMM-TRB-16: Cleaning of Equipment AMM-TRB-17: Hazardous Spill Plan AMM-TRB-18: Construction Site Maintenance AMM-TRB-19: Speed Limit AMM-TRB-20: Vehicle Staging and Fueling AMM-TRB-21: Vehicle and Equipment Maintenance AMM-TRB-22: Stormwater Management Plan AMM-TRB-23: Use of Clean Fill			
Salt Marsh Harvest Mouse	None	S	M-TBR-2a: Construction Avoidance Measures for Salt Marsh Harvest Mouse	LTS
Salt Marsh Wandering Shrew	None	S	M-TBR-2a: Construction Avoidance Measures for Salt Marsh Harvest Mouse	LTS
Western Snowy Plover	AMM-TRB-9: Pond Levels for Snowy Plover	S	M-TBR-2b: Construction Avoidance Measures for western snowy plovers, M-TBR-2c: Compensatory Measures for western snowy plover	LTS
Burrowing Owl	None	S	M-TBR-2d: Pre-construction Surveys and Passive Relocation of Burrowing Owls	LTS
Ridgway's Rail	None	S	M-TBR-2e: Construction Avoidance Measures for Ridgway's Rails	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
Nesting Birds	AMM-TRB-3: Conduct Preconstruction Surveys	S	M-TBR-2f: Construction Avoidance Measures for Nesting Birds	LTS
Sensitive Plants	None	S	M-TBR-2h: Conduct Focused Protocol-level Surveys for Congdon's tarplant	LTS
TBR-3: Effects on Wildlife Movement, Habitat Connectivity, Habitat Fragmentation, and Biodiversity	None	LTS (Alt 2,3,5) S (Alt 4)	None	LTS (Alt 2,3,5) S (Alt 4)
TBR-4: Effects on Population and Habitat Trends	AMM-TRB-10: Least Tern Breeding Buffer AMM-TRB-11: Pond Levels for Least Tern AMM-TRB-24: Cordgrass Monitoring	LTS (Alt 2,3) S (Alt 4,5)	M-TBR-3: Hydrologic Upgrades to Alviso Railroad Spur Levee	LTS (Alt 2,3) S (Alt 4,5)
TBR-5: Policy and Plan Conflicts	None	LTS (Alt 2,3) S (Alt 4,5)	None (Alt 2,3) None available (4,5)	LTS (Alt 2,3) S (Alt 4,5)
HAZ-01: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment	AMM-HAZ-1: Avoid Hazardous Site AMM-HAZ-2: Compliance with Federal and State Regulations AMM-HAZ-3: Prepare Health and Safety Plan	S	M-HAZ-01: Discovery of Undocumented Hazardous Materials	LTS
HAZ-02: Emit hazardous emissions or involve the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	AMM-HAZ-1: Avoid Hazardous Site AMM-HAZ-2: Compliance with Federal and State Regulations AMM-HAZ-3: Prepare Health and Safety Plan	LTS	None	LTS
HAZ-03: Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment	AMM-HAZ-1: Avoid Hazardous Site AMM-HAZ-2: Compliance with Federal and State Regulations AMM-HAZ-3: Prepare Health and Safety Plan AMM-HAZ-4: Records Review Prior to Construction	S	M-HAZ-03: Construction Near Hazardous Sites	LTS
HAZ-04: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	AMM-HAZ-3: Prepare Health and Safety Plan	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
TRN-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulations system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit; or conflict with congestion management program standards and goals for freeway segments.	AMM-TRN-1: Work Hours	LTS	None	LTS
TRN-2: Substantially increase hazards related to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., slow-moving construction equipment)	AMM-TRN-3: Traffic Control Plan	LTS	None	LTS
TRN-3: Result in inadequate emergency access to areas that are near the project and that rely on the same transportation facilities	AMM-TRN-3: Traffic Control Plan	LTS	None	LTS
TRN-4: Conflict with the City of San José, Santa Clara County, or Alameda County adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	AMM-TRN-2: Coordination with Railroad	LTS	None	LTS
AIR-1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation	AMM-AIR-1: Dust Control Measures AMM-AIR-2: Limit Idling Time AMM-AIR-3: Prepared SWPPP AMM-AIR-5: Cleaner Construction Equipment AMM-AIR-6: Use Electrical Power where Possible	S	M-AIR-1a M-AIR-1b	S
AIR-2: Expose sensitive receptors to substantial pollution concentrations	AMM-AIR-2: Limit Idling Time AMM-AIR-5: Cleaner Construction Equipment AMM-AIR-6: Use Electrical Power where Possible	LTS	None	LTS
AIR-3: Conflict with or obstruct implementation of the applicable air quality plan	None	LTS	None	LTS
AIR-4: Create objectionable odors affecting a substantial number of people	AMM-AIR-2: Limit Idling Time AMM-AIR-5: Cleaner Construction Equipment AMM-AIR-6: Use Electrical Power where Possible	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
AIR-5: Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases	AMM-AIR-4- Greenhouse Gas BMPs	LTS	None	LTS
REC-1: Limit or impede existing recreational uses in the project area such as trails, access to the bay, and environmental education	AMM-REC-1: Incorporate Existing Trails AMM-REC-2: Landscape Displays AMM-REC-3: Bay Trail Connection	LTS	None	LTS
REC-2: Increase the use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated	None	LTS	None	LTS
REC-3: Require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	None	LTS	None	LTS
AES-1: A substantial short-term negative aesthetic effect on the existing visual character or quality of the pond areas during construction	AMM-AES-1: Stabilize Disturbed Areas	LTS (Alt 2,3) S (Alt 4,5)	None	LTS (Alt 2,3) S (Alt 4,5)
AES-2: A substantial, demonstrable negative aesthetic effect on scenic vistas such as those associated with the Alviso Marina and the Refuge	None	LTS	None	LTS
AES-3: Create a new source of glare that would adversely affect views in the area	None	LTS	None	LTS
AES-4: Have a substantial long-term negative aesthetic effect on the existing visual character or quality of the pond areas	None	LTS (Alt 2,3) S (Alt 4,5)	None (Alt 2,3) None available (Alt 4,5)	LTS (Alt 2,3) S (Alt 4,5)
NOI-1: Expose people to or generate noise levels in excess of standards established in the City of San José's municipal code for land inside the city limits or the Santa Clara County Code standards for land in unincorporated areas of Santa Clara County	AMM-NOI-1: Work Hours AMM-NOI-3: Noise Best Management Practices	S	M-NOI-1	LTS
NOI-2: A substantial temporary or periodic increase in ambient noise levels in the project vicinity due to construction activities	AMM-NOI-1: Work Hours AMM-NOI-2: Wildlife Buffers AMM-NOI-3: Noise Best Management Practices	S	M-NOI-1	LTS
NOI-3: Expose people to or generate excessive ground-borne vibration or ground-borne noise levels	None	LTS		LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
NOI-4: A substantial permanent increase in ambient noise levels or vibration in the project vicinity above existing levels without the project	None	LTS		LTS
NOI-5: Exposure of people residing or working in the study area to excessive aircraft-generated noise levels	None	No Impact		No Impact
HEA-1: Create a significant hazard to the public through exposure to disease vectors	None	LTS	None	LTS
HEA-2: Create a substantial increase in the need for vector (mosquito) management	AMM-HEA-1: Coordinate with Vector Control District	LTS	None	LTS
CUL-1: Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 or 36 CFR 800.5 of the ACHP's implementing regulations	AMM-CUL-1: Avoid Cultural Resources	S	M-CUL-1	LTS
CUL-2: Cause a disturbance of human remains, including those interred outside of formal cemeteries	AMM-CUL-2: Discovery of Remains	LTS	None	LTS
UTL-01: Police and emergency services	AMM-UTL-2: Flood Warning Signs	LTS	None	LTS
UTL-02: Construction waste and landfill capacity	AMM-UTL-: Reuse Materials	LTS	None	LTS
UTL-03: Construction of new or expanded utilities	AMM-UTL-3: Relocate Utilities	LTS	None	LTS
UTL-04: Power transmission lines and tower	None	LTS	None	LTS
UTL-05: Interfere with rail transportation or operations	None	LTS	None	LTS
UTL-06: Water use impacts	None	LTS	None	LTS

NI = No Impact
LTS = less than significant
S = significant
B = beneficial
NA = not applicable
DO = dissolved oxygen
SWPPP = Stormwater Pollution Prevention Plan
MeHg = Methylmercury
BMPs = Best Management Practices
CEQA = California Environmental Quality Act
CFR = Code of Federal Regulations
ACHP = Advisory Council on Historic Preservation

C.4 Unavoidable Adverse Impacts

Chapter 4 *Existing and Future Conditions / Affected Environment, Environmental Consequences, and Mitigation Measures* describes the potentially significant project-related effects on the built and natural environments. The analyses in Chapter 4 *Existing and Future Conditions/Affected Environment, Environmental Consequences, and Mitigation Measures* identify a number of potentially significant effects associated with the action alternatives; most of those effects could be reduced to a less-than-significant level with the application of mitigation. The action alternatives would result in the following unavoidable adverse effects:

- **Incompatibility with the *New Chicago Marsh Water Management Plan*** (Section 4.3 *Land Use and Planning*) – Alternative 5 only
- **Loss / disruption of marsh habitat in New Chicago Marsh** (Section 4.7 *Terrestrial Biological Resources*):
  - Levee bisecting New Chicago Marsh effect on wildlife movement and habitat connectivity – Alternative 4 only
  - Levee alignment leaving all or part of New Chicago Marsh subject to tidal flooding effect on population and habitat trends – project and cumulative impact for Alternatives 4 and 5
  - Incompatible with biological components of *New Chicago Marsh Water Management Plan* – Alternatives 4 and 5
- **Violate air quality standard for nitrogen oxides and reactive organic gases** (Section 4.10 *Air Quality/Greenhouse Gases*) – All action alternatives
- **Short-term negative effect on visual character** (Section 4.12 *Aesthetics*) – Alternatives 4 and 5
- **Long-term negative effect on visual character from Alviso** (Section 4.12 *Aesthetics*) – project and cumulative impact for Alternatives 4 and 5
- **Cumulative loss of pond habitat used by pond-specialist bird species** (Section 4.7 *Terrestrial Biological Resources*) – all action alternatives
- **Cumulative temporary increase in noise levels** (Section 4.13 *Noise*) – all action alternatives

C.5 Potential Areas of Controversy

The loss of pond habitats due to the creation of tidal marsh was extensively debated during the 5-year programmatic planning effort of the South Bay Salt Pond Restoration Project (SBSP Restoration Project; 2003–2008). The SBSP Restoration Project environmental documentation stated that the preferred alternative included up to 90 percent of the project area be restored to tidal marsh in order to make up for the overwhelming loss of the historic tidal wetland resources. However, the project documentation also stated that several strategies would be incorporated into the project to address impacts to the pond-specialist species.

- The first major strategy is to enhance a carefully selected group of existing ponds to improve their productivity, creating what are called "enhanced managed ponds." These are ponds that have lower salinity levels, better ability to manage water levels and flows with new water-control structures, and islands for roosting and nesting.
- The second strategy for the SBSP Restoration Project to prevent significant impacts to pond species is the adaptive management process. Conversion of ponds to tidal wetlands will happen over time, in phases, with monitoring and applied studies being incorporated into the process.

Based on these results, if undesired impacts appear, then corrective action would be taken or, possibly, the conversion of ponds to tidal wetlands would stop. Since the Shoreline Phase I Study is closely coordinated with the SBSP Restoration Project planning effort, a similar approach was adopted to address the impacts of converting pond habitats to tidal wetlands. The ecosystem-restoration actions would be implemented in phases with monitoring and close integration with the adaptive management program of the SBSP Restoration Project.

C.6 Issues to Be Resolved

The final EIR for the Plant Master Plan for the San José–Santa Clara Regional Wastewater Facility includes a levee alignment between Pond A18 and plant property that is not the same alignment discussed in this report. However, in the final adopted version of the San Jose/Santa Clara Water Pollution Control Plant's Plant Master Plan (PMP, November 2013), the City did not adopt a specific levee alignment. Rather, the Plan outlines a vision of flood protection and restoration to be implemented in partnership with other agencies. The PMP can be found here: www.sanjoseca.gov/DocumentCenter/View/38425. The Project Description section of the PMP EIR, states "The levee alignment shown in the proposed site plan is subject to change as the Shoreline study is in the planning phase. Therefore, the levee alignment segment traversing the active biosolids lagoons is identified as tentative. The role of the PMP is to accommodate the levee, which will be designed and constructed by other agencies. City staff will continue to work with the Shoreline Study agencies in the development of the levee." The project proponents of the Shoreline Phase I Project will continue to work with the City of San José and the regulatory agencies to coordinate the two plans and develop a final alignment that serves both while minimizing adverse effects.

As noted throughout this report, there is some uncertainty as to how various environmental resources would respond to long-term changes brought about by the Shoreline Phase I Project and the SBSP Restoration Project. The Shoreline Phase I Project includes an extensive Monitoring and Adaptive Management Plan (Appendix F *Shoreline Study Monitoring and Adaptive Management Plan for Ecosystem Restoration*). As implementation of the project progresses, adaptive management would guide the selection of the final mix of habitats. Since project construction would occur over more than 14 years, later phases would reflect lessons learned from earlier actions. Adaptive management may also result in corrective measures being implemented for earlier phases.

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ERRATA TO THE FINAL INTEGRATED INTERIM FEASIBILITY STUDY AND ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT FOR THE SOUTH SAN FRANCISCO BAY SHORELINE PHASE I STUDY

The Santa Clara Valley Water District (District) has prepared this Errata to correct information in the Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report (Integrated Document) for the South San Francisco Bay Shoreline Phase I Study (Project) (SCH No. 2006012020). The U.S. Army Corps of Engineers (USACE) and the U.S. Fish and Wildlife Service (USFWS) are acting as the co-lead agencies under the National Environmental Policy Act (NEPA), and the District is acting as the lead agency under the California Environmental Quality Act (CEQA). The USACE and the USFWS, as NEPA co-lead agencies, and the District as the CEQA lead agency, have prepared the Integrated Document to evaluate the potential impacts of the Project. Following the USACE release of the Final Integrated Document in December 2015, the District noted some errors in Chapter C.0, *California Environmental Quality Act Summary*. Specifically, a few entries in Table C.3-1, Summary of Project Impacts, do not accurately reflect the information provided in the environmental analysis sections of the Final Integrated Document. The corrections in the Final Integrated Document are listed by section number and page number in Table ERRATA-1, with the added information shown in **underline** and the deleted information shown in ~~**strikeout**~~ on the attached pages.

The information in this Errata document is provided to correct information within the Final Integrated Document. Pursuant to CEQA Guidelines section 15088.5, a lead agency must recirculate an EIR when "significant new information" is added to the EIR after public notice has been given of the availability of the Draft EIR but prior to certification of a Final EIR. "Significant new information" requiring recirculation includes, for example, a disclosure showing that (1) a new significant impact would result from the project or from a new mitigation measure proposed to be implemented, (2) a substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to below a level of significance, (3) a feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the significant environmental impacts of the project but the project proponents decline to adopt it, and/or (4) the Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

New information added to an EIR is not "significant," and recirculation of an EIR is not required, unless the EIR is changed in a way that deprives the public of either a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project proponent has declined to implement. The District has reviewed the information in this Errata and has determined that it does not change any of the findings or conclusions of the Final Integrated Document and does not constitute "significant new information" pursuant to CEQA Guidelines section 15088.5. Accordingly, the District finds that recirculation of the Final Integrated Document is not required.

Revisions to the Final Integrated Document

A summary of the revisions made to the Final Integrated Document since issuance in December 2015 is provided in Table ERRATA-1; the table also provides the page number(s) in the Final Integrated Document where each revision is located. Table C.3-1, Summary of Project Impacts, is provided as an attachment to this document for replacement in the Final Integrated Document.

Table ERRATA-1 Revisions to the Final Environmental Impact Report

	Chapter/Section of Final Integrated Document	Page Number	Summary of Revision
1	Table C.3-1 in Chapter C.0, California Environmental Quality Act Summary	C-2	The “Significance” and “Mitigation” columns for Impact GEO-1 was revised to reflect the Final Integrated Document’s determination that Impact GEO-1 would be less than significant with implementation of the listed avoidance and minimization measures and thus no mitigation is required.
2	Table C.3-1 in Chapter C.0, California Environmental Quality Act Summary	C-7	The “Mitigation” column for Impact AIR-1 was revised to include two mitigation measures (M-AIR-1a and M-AIR-1b) that were proposed in Section 4.10 to reduce construction related emissions of air pollutants.
3	Table C.3-1 in Chapter C.0, California Environmental Quality Act Summary	C-7	The “Avoidance and Minimization Measure” column was revised to include two additional avoidance and minimization measures (AMM-AIR-5 and AMM-AIR-6) that were proposed to reduce odors resulting from project construction.

C.0 California Environmental Quality Act Summary

C.1 Summary

This document includes an Environmental Impact Report (EIR) analyzing the environmental effects of the Shoreline Phase I Project. The project would provide tidal flood protection between Coyote Creek and the Guadalupe River, allow for the restoration of approximately 2,000 acres of former salt ponds to tidal marsh, and allow for recreational features.

This EIR has been prepared in compliance with the California Environmental Quality Act (CEQA) to provide an objective analysis to be used by the CEQA lead agency (the Santa Clara Valley Water District, or SCVWD), as well as other agencies and the public, in their considerations regarding the implementation, rejection, or modification of the project as proposed. The EIR itself does not determine whether the project will be implemented or not; it serves only as an informational document in the local planning and decision-making process. The purpose of the EIR process is to develop and assess a recommended plan and alternatives for the project and to avoid and mitigate significant adverse effects on environmental resources while aiming to achieve the primary project objectives.

C.2 Proposed Project

The SCVWD's preferred alternative, which is the Locally Preferred Plan (Alternative 3), would include engineered levees along the western and northern outer levees of New Chicago Marsh along the existing margins of Ponds A12, A13, and A16 (Alviso North alignment) and would follow the San José–Santa Clara Regional Wastewater Facility (Wastewater Facility) levee that runs west to east in a stair-step pattern along the north border (Water Pollution Control Plant South alignment) to protect against the 1-percent annual chance of exceedance tidal event with anticipated sea level change; a tide gate closure system across Artesian Slough; restoration of Ponds A9, A10, A11, A12, A13, A14, A15, and A18; a transitional habitat slope of 30:1 in Ponds A12/A13 and A18; multi-use trails on top of the new proposed flood risk management levee with connection to the Bay Trail network; viewing platforms and benches; and trail upgrades to be made to an existing segment of the Bay Trail system along State Route 237.

The flood-protection components would be constructed between 2018 and 2021. Restoration of the ponds and recreation elements would take place between 2020 and 2031 with monitoring and adaptive management occurring throughout the period.

C.3 Anticipated Environmental Impacts

Table C.3-1 *Summary of Project Impacts* summarizes the project's potential for impacts on the environment and a list of avoidance and minimization measures that would be implemented as part of the project, along with the mitigation measures identified to avoid or minimize identified significant impacts. For a complete description of potential impacts and recommended mitigation measures, please refer to the specific discussions in Chapter 4 *Existing and Future Conditions / Affected Environment, Environmental Consequences, and Mitigation Measures*.

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
GEO-1: Expose People or Structures to Potential Substantial Adverse Effects During Seismic Events	AMM-GEO -1: Public warning signs AMM-GEO-3: Levee Design	~~S~~ LTS	~~M GEO-1: Worker Seismic Safety~~ None	LTS
GEO-2: Expose people or structures to tsunami or seiche	AMM-GEO -1: Public warning signs AMM-GEO-4: Stop Work After Seismic Activity	LTS	None	LTS
GEO-3: Result in substantial soil erosion or the loss of topsoil in or adjacent to the study area	AMM-GEO-2: Reuse soils AMM-GEO-5: Channel Tidal Flow AMM-GEO-6: Prepare SWPPP	LTS	None	LTS
LND-1: Physically divide the community of Alviso		NI	None	NI
LND-2: Conflict with land use policies	AMM-LND-1: Minimize Disturbance AMM-LND-2: Removal Materials	LTS (Alt 2,3) S (Alt 4, 5)	None (Alt 2,3) M-LND-2: New Chicago Marsh Protection (Alt 4) None Available (Alt 5)	LTS (Alt 2,3,4) S (Alt 5)
LND-3: Conflict with the adopted Santa Clara Valley Habitat Plan	AMM-LND-1: Minimize Disturbance AMM-LND-2: Removal Materials	LTS	None	LTS
HYD-1: Alter existing drainage patterns in a manner that would result in scour that could cause substantial erosion or siltation	None	S	M-HYD-01a: levee maintenance will be adjusted or levee improvements implemented If excessive scour occurs of the levee crown or sides. M-HYD-01b: Fabric and/or rock armoring will be installed for excessive scour at the levee toe. M-HYD-01c: Develop and implement plan to protect UPRR bridge crossing of Coyote Creek	LTS
HYD-2: Increase the risk of flooding that could cause injury, death, or substantial property loss	AMM-HYD-1: Flood Warnings	B	None	B
HYD-3: Conduct excavation activities, fill placement, construction dewatering, and structure building in a manner that could affect adjacent existing levees (geotechnical issues)	None	LTS	None	LTS
HYD-4: Place non-flood risk hazard reduction structures within the 1-percent ACE flood hazard area that would impede or redirect flood flows	None	NI	None	NI

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
WAT-01 violate any water quality standard or waste discharge	AMM-WAT-1: Staging Area AMM-WAT-2: Fuel Management Plan AMM-WAT-4: Pond Construction Timing AMM-WAT-5: Hazardous Spill Plan AMM-WAT-6: Seasonal Restrictions AMM-WAT-7: Minimize Footprint AMM-WAT-8: Clean Equipment AMM-WAT-9: Site Maintenance AMM-WAT-11: Protect Hazardous Sites AMM-WAT-12: Use of On-Site Material AMM-WAT-14: Water Quality Parameters AMM-WAT-15: Water Quality Baseline AMM-WAT-19: Minimize In-water Construction AMM-WAT-20: Turbidity Control AMM-WAT-21: Stormwater Runoff Control AMM-WAT-22: Stormwater Management Plan AMM-WAT-23: Use of Clean Fill AMM-WAT-24: Prepare SWPPP AMM-WAT-25: No Treated Wood AMM-WAT-26: Equipment Staging and Fueling AMM-WAT-27: Hazardous Spill Plan AMM-WAT-28: Prevent Equipment Leaks AMM-WAT-29: Stabilize Construction Areas AMM-WAT-30: Invasive Plant Prevention			
• Turbidity around breaches	AMM-WAT-3: Turbidity Management Plan AMM-WAT-10: In-Stream Sediment Control	LTS	None	LTS
• Increased water temperature	None	LTS	None	LTS
• Metals	None	LTS	None	LTS
• Salinity effects on waters near Ponds A12, A13, and A15	None	S	M-WAT-1a: Salinity Control	LTS
• Reduced DO levels in Pond A12	AMM-WAT-16: Dissolved Oxygen	S	M-WAT-1b: Dissolved Oxygen Control.	LTS
• Long-term suspension and mobilization of mercury-laden sediments and greater levels of MeHg	AMM-WAT-17: Mercury in Sentinel Species	LTS	None	LTS
• Algae composition	AMM-WAT-18: Control of Nuisance Algae	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
WAT-2: Substantially alter existing drainage patterns	AMM-WAT-13: Sediment Accretion Areas	LTS	None	LTS
ABR-1: Substantial adverse effect on any special-status species	AMM-ABR-1: Seasonal Restrictions AMM-ABR-2: Biological Monitor AMM-ABR-3: Vibratory Piling AMM-ABR-4: In Water Sediment Control AMM-ABR-5: Screen Pumps AMM-ABR-7: Notification of Mortality Events AMM-ABR-8: Adequate Depth of Channels AMM-ABR-9: Salvage Natural Materials AMM-ABR-10: Prepare SWPPP AMM-ABR-11: Biological Monitoring AMM-ABR-12: Water Structure Materials AMM-WAT-27: Hazardous Spill Plan AMM-WAT-28: Prevent Equipment Leaks	LTS	None	LTS
ABR-2: Conflict with the provisions of the Santa Clara Valley Habitat Plan	None	NI	None	NI
TBR-1: Effects on sensitive natural communities	None	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
TBR-2: Effects on special status species	AMM-TRB-1: Notification of Mortality AMM-TRB-2: Seasonal Restrictions AMM-TRB-3: Conduct Preconstruction Surveys AMM-TRB-4: Stage Outside Sensitive Habitats AMM-TRB-5: Minimize Footprint AMM-TRB-6: Install Exclusionary Fencing AMM-TRB-7: Biological Monitor AMM-TRB-8: Restore Disturbed Areas AMM-TRB-12: Worker Awareness AMM-TRB-13: Closure of Trails for Bird Species AMM-TRB-14: Interpretive Signs AMM-TRB-15: No Dogs in Refuge AMM-TRB-16: Cleaning of Equipment AMM-TRB-17: Hazardous Spill Plan AMM-TRB-18: Construction Site Maintenance AMM-TRB-19: Speed Limit AMM-TRB-20: Vehicle Staging and Fueling AMM-TRB-21: Vehicle and Equipment Maintenance AMM-TRB-22: Stormwater Management Plan AMM-TRB-23: Use of Clean Fill			
Salt Marsh Harvest Mouse	None	S	M-TBR-2a: Construction Avoidance Measures for Salt Marsh Harvest Mouse	LTS
Salt Marsh Wandering Shrew	None	S	M-TBR-2a: Construction Avoidance Measures for Salt Marsh Harvest Mouse	LTS
Western Snowy Plover	AMM-TRB-9: Pond Levels for Snowy Plover	S	M-TBR-2b: Construction Avoidance Measures for western snowy plovers, M-TBR-2c: Compensatory Measures for western snowy plover	LTS
Burrowing Owl	None	S	M-TBR-2d: Pre-construction Surveys and Passive Relocation of Burrowing Owls	LTS
Ridgway's Rail	None	S	M-TBR-2e: Construction Avoidance Measures for Ridgway's Rails	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
Nesting Birds	AMM-TRB-3: Conduct Preconstruction Surveys	S	M-TBR-2f: Construction Avoidance Measures for Nesting Birds	LTS
Sensitive Plants	None	S	M-TBR-2h: Conduct Focused Protocol-level Surveys for Congdon's tarplant	LTS
TBR-3: Effects on Wildlife Movement, Habitat Connectivity, Habitat Fragmentation, and Biodiversity	None	LTS (Alt 2,3,5) S (Alt 4)	None	LTS (Alt 2,3,5) S (Alt 4)
TBR-4: Effects on Population and Habitat Trends	AMM-TRB-10: Least Tern Breeding Buffer AMM-TRB-11: Pond Levels for Least Tern AMM-TRB-24: Cordgrass Monitoring	LTS (Alt 2,3) S (Alt 4,5)	M-TBR-3: Hydrologic Upgrades to Alviso Railroad Spur Levee	LTS (Alt 2,3) S (Alt 4,5)
TBR-5: Policy and Plan Conflicts	None	LTS (Alt 2,3) S (Alt 4,5)	None (Alt 2,3) None available (4,5)	LTS (Alt 2,3) S (Alt 4,5)
HAZ-01: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment	AMM-HAZ-1: Avoid Hazardous Site AMM-HAZ-2: Compliance with Federal and State Regulations AMM-HAZ-3: Prepare Health and Safety Plan	S	M-HAZ-01: Discovery of Undocumented Hazardous Materials	LTS
HAZ-02: Emit hazardous emissions or involve the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	AMM-HAZ-1: Avoid Hazardous Site AMM-HAZ-2: Compliance with Federal and State Regulations AMM-HAZ-3: Prepare Health and Safety Plan	LTS	None	LTS
HAZ-03: Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment	AMM-HAZ-1: Avoid Hazardous Site AMM-HAZ-2: Compliance with Federal and State Regulations AMM-HAZ-3: Prepare Health and Safety Plan AMM-HAZ-4: Records Review Prior to Construction	S	M-HAZ-03: Construction Near Hazardous Sites	LTS
HAZ-04: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	AMM-HAZ-3: Prepare Health and Safety Plan	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
TRN-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulations system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit; or conflict with congestion management program standards and goals for freeway segments.	AMM-TRN-1: Work Hours	LTS	None	LTS
TRN-2: Substantially increase hazards related to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., slow-moving construction equipment)	AMM-TRN-3: Traffic Control Plan	LTS	None	LTS
TRN-3: Result in inadequate emergency access to areas that are near the project and that rely on the same transportation facilities	AMM-TRN-3: Traffic Control Plan	LTS	None	LTS
TRN-4: Conflict with the City of San José, Santa Clara County, or Alameda County adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	AMM-TRN-2: Coordination with Railroad	LTS	None	LTS
AIR-1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation	AMM-AIR-1: Dust Control Measures AMM-AIR-2: Limit Idling Time AMM-AIR-3: Prepared SWPPP AMM-AIR-5: Cleaner Construction Equipment AMM-AIR-6: Use Electrical Power where Possible	S	M-AIR-1a M-AIR-1b	S
AIR-2: Expose sensitive receptors to substantial pollution concentrations	AMM-AIR-2: Limit Idling Time AMM-AIR-5: Cleaner Construction Equipment AMM-AIR-6: Use Electrical Power where Possible	LTS	None	LTS
AIR-3: Conflict with or obstruct implementation of the applicable air quality plan	None	LTS	None	LTS
AIR-4: Create objectionable odors affecting a substantial number of people	AMM-AIR-2: Limit Idling Time AMM-AIR-5: Cleaner Construction Equipment AMM-AIR-6: Use Electrical Power where Possible	LTS	None	LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
AIR-5: Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases	AMM-AIR-4- Greenhouse Gas BMPs	LTS	None	LTS
REC-1: Limit or impede existing recreational uses in the project area such as trails, access to the bay, and environmental education	AMM-REC-1: Incorporate Existing Trails AMM-REC-2: Landscape Displays AMM-REC-3: Bay Trail Connection	LTS	None	LTS
REC-2: Increase the use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated	None	LTS	None	LTS
REC-3: Require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	None	LTS	None	LTS
AES-1: A substantial short-term negative aesthetic effect on the existing visual character or quality of the pond areas during construction	AMM-AES-1: Stabilize Disturbed Areas	LTS (Alt 2,3) S (Alt 4,5)	None	LTS (Alt 2,3) S (Alt 4,5)
AES-2: A substantial, demonstrable negative aesthetic effect on scenic vistas such as those associated with the Alviso Marina and the Refuge	None	LTS	None	LTS
AES-3: Create a new source of glare that would adversely affect views in the area	None	LTS	None	LTS
AES-4: Have a substantial long-term negative aesthetic effect on the existing visual character or quality of the pond areas	None	LTS (Alt 2,3) S (Alt 4,5)	None (Alt 2,3) None available (Alt 4,5)	LTS (Alt 2,3) S (Alt 4,5)
NOI-1: Expose people to or generate noise levels in excess of standards established in the City of San José's municipal code for land inside the city limits or the Santa Clara County Code standards for land in unincorporated areas of Santa Clara County	AMM-NOI-1: Work Hours AMM-NOI-3: Noise Best Management Practices	S	M-NOI-1	LTS
NOI-2: A substantial temporary or periodic increase in ambient noise levels in the project vicinity due to construction activities	AMM-NOI-1: Work Hours AMM-NOI-2: Wildlife Buffers AMM-NOI-3: Noise Best Management Practices	S	M-NOI-1	LTS
NOI-3: Expose people to or generate excessive ground-borne vibration or ground-borne noise levels	None	LTS		LTS

Table C.3-1. Summary of Project Impacts

Effect	Avoidance and Minimization Measures	Significance	Mitigation	Significance after Mitigation
NOI-4: A substantial permanent increase in ambient noise levels or vibration in the project vicinity above existing levels without the project	None	LTS		LTS
NOI-5: Exposure of people residing or working in the study area to excessive aircraft-generated noise levels	None	No Impact		No Impact
HEA-1: Create a significant hazard to the public through exposure to disease vectors	None	LTS	None	LTS
HEA-2: Create a substantial increase in the need for vector (mosquito) management	AMM-HEA-1: Coordinate with Vector Control District	LTS	None	LTS
CUL-1: Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 or 36 CFR 800.5 of the ACHP's implementing regulations	AMM-CUL-1: Avoid Cultural Resources	S	M-CUL-1	LTS
CUL-2: Cause a disturbance of human remains, including those interred outside of formal cemeteries	AMM-CUL-2: Discovery of Remains	LTS	None	LTS
UTL-01: Police and emergency services	AMM-UTL-2: Flood Warning Signs	LTS	None	LTS
UTL-02: Construction waste and landfill capacity	AMM-UTL-: Reuse Materials	LTS	None	LTS
UTL-03: Construction of new or expanded utilities	AMM-UTL-3: Relocate Utilities	LTS	None	LTS
UTL-04: Power transmission lines and tower	None	LTS	None	LTS
UTL-05: Interfere with rail transportation or operations	None	LTS	None	LTS
UTL-06: Water use impacts	None	LTS	None	LTS

NI = No Impact
LTS = less than significant
S = significant
B = beneficial
NA = not applicable
DO = dissolved oxygen
SWPPP = Stormwater Pollution Prevention Plan
MeHg = Methylmercury
BMPs = Best Management Practices
CEQA = California Environmental Quality Act
CFR = Code of Federal Regulations
ACHP = Advisory Council on Historic Preservation

C.4 Unavoidable Adverse Impacts

Chapter 4 *Existing and Future Conditions / Affected Environment, Environmental Consequences, and Mitigation Measures* describes the potentially significant project-related effects on the built and natural environments. The analyses in Chapter 4 *Existing and Future Conditions/Affected Environment, Environmental Consequences, and Mitigation Measures* identify a number of potentially significant effects associated with the action alternatives; most of those effects could be reduced to a less-than-significant level with the application of mitigation. The action alternatives would result in the following unavoidable adverse effects:

- **Incompatibility with the *New Chicago Marsh Water Management Plan*** (Section 4.3 *Land Use and Planning*) – Alternative 5 only
- **Loss / disruption of marsh habitat in New Chicago Marsh** (Section 4.7 *Terrestrial Biological Resources*):
  - Levee bisecting New Chicago Marsh effect on wildlife movement and habitat connectivity – Alternative 4 only
  - Levee alignment leaving all or part of New Chicago Marsh subject to tidal flooding effect on population and habitat trends – project and cumulative impact for Alternatives 4 and 5
  - Incompatible with biological components of *New Chicago Marsh Water Management Plan* – Alternatives 4 and 5
- **Violate air quality standard for nitrogen oxides and reactive organic gases** (Section 4.10 *Air Quality/Greenhouse Gases*) – All action alternatives
- **Short-term negative effect on visual character** (Section 4.12 *Aesthetics*) – Alternatives 4 and 5
- **Long-term negative effect on visual character from Alviso** (Section 4.12 *Aesthetics*) – project and cumulative impact for Alternatives 4 and 5
- **Cumulative loss of pond habitat used by pond-specialist bird species** (Section 4.7 *Terrestrial Biological Resources*) – all action alternatives
- **Cumulative temporary increase in noise levels** (Section 4.13 *Noise*) – all action alternatives

C.5 Potential Areas of Controversy

The loss of pond habitats due to the creation of tidal marsh was extensively debated during the 5-year programmatic planning effort of the South Bay Salt Pond Restoration Project (SBSP Restoration Project; 2003–2008). The SBSP Restoration Project environmental documentation stated that the preferred alternative included up to 90 percent of the project area be restored to tidal marsh in order to make up for the overwhelming loss of the historic tidal wetland resources. However, the project documentation also stated that several strategies would be incorporated into the project to address impacts to the pond-specialist species.

- The first major strategy is to enhance a carefully selected group of existing ponds to improve their productivity, creating what are called "enhanced managed ponds." These are ponds that have lower salinity levels, better ability to manage water levels and flows with new water-control structures, and islands for roosting and nesting.
- The second strategy for the SBSP Restoration Project to prevent significant impacts to pond species is the adaptive management process. Conversion of ponds to tidal wetlands will happen over time, in phases, with monitoring and applied studies being incorporated into the process.

Based on these results, if undesired impacts appear, then corrective action would be taken or, possibly, the conversion of ponds to tidal wetlands would stop. Since the Shoreline Phase I Study is closely coordinated with the SBSP Restoration Project planning effort, a similar approach was adopted to address the impacts of converting pond habitats to tidal wetlands. The ecosystem-restoration actions would be implemented in phases with monitoring and close integration with the adaptive management program of the SBSP Restoration Project.

C.6 Issues to Be Resolved

The final EIR for the Plant Master Plan for the San José–Santa Clara Regional Wastewater Facility includes a levee alignment between Pond A18 and plant property that is not the same alignment discussed in this report. However, in the final adopted version of the San Jose/Santa Clara Water Pollution Control Plant's Plant Master Plan (PMP, November 2013), the City did not adopt a specific levee alignment. Rather, the Plan outlines a vision of flood protection and restoration to be implemented in partnership with other agencies. The PMP can be found here: www.sanjoseca.gov/DocumentCenter/View/38425. The Project Description section of the PMP EIR, states "The levee alignment shown in the proposed site plan is subject to change as the Shoreline study is in the planning phase. Therefore, the levee alignment segment traversing the active biosolids lagoons is identified as tentative. The role of the PMP is to accommodate the levee, which will be designed and constructed by other agencies. City staff will continue to work with the Shoreline Study agencies in the development of the levee." The project proponents of the Shoreline Phase I Project will continue to work with the City of San José and the regulatory agencies to coordinate the two plans and develop a final alignment that serves both while minimizing adverse effects.

As noted throughout this report, there is some uncertainty as to how various environmental resources would respond to long-term changes brought about by the Shoreline Phase I Project and the SBSP Restoration Project. The Shoreline Phase I Project includes an extensive Monitoring and Adaptive Management Plan (Appendix F *Shoreline Study Monitoring and Adaptive Management Plan for Ecosystem Restoration*). As implementation of the project progresses, adaptive management would guide the selection of the final mix of habitats. Since project construction would occur over more than 14 years, later phases would reflect lessons learned from earlier actions. Adaptive management may also result in corrective measures being implemented for earlier phases.

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BOARD OF DIRECTORS
SANTA CLARA VALLEY WATER DISTRICT

RESOLUTION NO. 16- 20

CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT AND ADOPTING FINDINGS OF FACT, STATEMENT OF OVERRIDING CONSIDERATIONS, AND MITIGATION MONITORING AND REPORTING PROGRAM FOR THE SOUTH SAN FRANCISCO BAY SHORELINE PHASE I STUDY

WHEREAS, the United States Army Corps of Engineers (USACE), the U.S. Fish and Wildlife Service (USFWS), the Santa Clara Valley Water District (District), and the California State Coastal Conservancy have jointly prepared the *Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report* (Integrated Document) for the South San Francisco Bay Shoreline Phase I Study (Project); and,

WHEREAS, the Integrated Document was prepared pursuant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) to evaluate environmental impacts of the Project with the USACE and USFWS as NEPA lead agencies and the District as CEQA Lead Agency; and,

WHEREAS, prior to taking action, the Board of Directors of the District has reviewed and considered the information contained in the Final Integrated Document, Errata to the Final Integrated Document, and the record including but not limited to technical reports, oral and written comments provided by the public and state and local agencies, responses to said comments contained in the Final Integrated Document, and other matters deemed material and relevant;

NOW, THEREFORE BE IT RESOLVED by the Board of Directors of the Santa Clara Valley Water District that:

1. The Board certifies that:

   A. The Board has been presented with all the information described in the recitals and has reviewed and considered this information.

   B. The Final Integrated Document has been completed in compliance with CEQA and is adequate for Board consideration of the Project.

   C. The Final Integrated Document reflects the independent judgment and analysis of the District.

2. Changes have been incorporated into the Project which avoid, and/or substantially lessen most of the significant environmental effects identified in the Final Integrated Document. The District shares responsibility for ensuring the implementation of such changes during implementation of the Project.

3. Specific economic, legal, social, technological, and other considerations make mitigation measures for certain significant environmental effects infeasible. The findings of fact contained in Exhibit 1 state the overriding considerations that support the Project described in the Final Integrated Document.

4. The findings of fact and Statement of Overriding Considerations contained in Exhibit 1, attached hereto and incorporated by reference, are supported by substantial evidence in the record.

5. The Mitigation Monitoring and Reporting Program (MMRP) attached as Exhibit 2 is hereby adopted. Implementation of the MMRP to avoid or substantially lessen significant environmental effects is required as a condition of approval of the Project.

6. The documents and materials which constitute the record of proceedings upon which this decision is based are available from the Clerk of the Board of the Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118-3614.

7. The Chief Executive Officer is hereby authorized and directed, on behalf of the District's Board of Directors, to execute any such documents and to perform any such acts as may be deemed necessary or appropriate to accomplish the intent of this resolution.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District by the following vote on March 22, 2016:

AYES: Directors T. Estremera, N. Hsueh, G. Kremen, L. LeZotte, R. Santos, J. Varela, B. Keegan

NOES: Directors None

ABSENT: Directors None

ABSTAIN: Directors None

SANTA CLARA VALLEY WATER DISTRICT

By: _____
BARBARA KEEGAN
Chair/Board of Directors

ATTEST: MICHELE L. KING, CMC

_____
Clerk/Board of Directors

EXHIBIT 1

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS BY THE SANTA CLARA VALLEY WATER DISTRICT FOR THE SOUTH SAN FRANCISCO BAY SHORELINE PHASE I STUDY

The United States Army Corps of Engineers (USACE), the U.S. Fish and Wildlife Service (USFWS), the Santa Clara Valley Water District (District), and the California State Coastal Conservancy (CSCC) have jointly prepared a *Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report* (Integrated Document) for the South San Francisco Bay Shoreline Phase I Study (Project). The USACE and USFWS are the co-lead agencies under the National Environmental Policy Act. The joint non-Federal sponsors are the District and the CSCC, and the District is the lead agency for purpose of the California Environmental Quality Act (CEQA). These findings, as well as the accompanying statement of overriding considerations, were prepared in accordance with CEQA (Public Resources Code § 21000 et seq.) and Sections 15091 and 15093 of the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.)).

Pursuant to Public Resources Code § 21081 and CEQA Guidelines § 15091, a public agency may not approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of the significant effects, and explain a rationale for each finding. The possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant effects on the environment;

(2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the final EIR. (The concept of infeasibility also encompasses whether a particular alternative or mitigation measure promotes the Project's underlying goals and objectives, and whether an alternative or mitigation measure is impractical or undesirable from a policy standpoint. See *City of Del Mar v. City of San Diego* (1982) 133 Cal. App. 3d 410; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal. App.4th 957.)

In addition, pursuant to Public Resources Code § 21081 and CEQA Guidelines § 15093, when the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record; such statement of overriding considerations shall be supported by substantial evidence in the record.

The Board of Directors ("Board") of the District hereby finds, determines, and declares as follows:

I. BACKGROUND

A. Project Description

The area between Alviso Slough and Coyote Creek (Study Area) has considerable risk for tidal flooding due to having large areas of low lying terrain protected by non-engineered dikes. The flood risk will substantially increase over the next several decades due to sea level rise. In addition to flood risk, the past creation of commercial salt harvesting ponds along southern San Francisco Bay has resulted in a loss of most of the tidal salt marsh habitat within the Study Area. These local tidal marsh losses are in addition to San Francisco estuary-wide losses of approximately 90 percent of all tidal wetlands.

In general, the goals and objectives of the Project are to provide (1) a higher level of tidal flood risk resiliency throughout the community of Alviso within the city of San José, as well as unincorporated parts of Santa Clara County; (2) increased ecosystem functions within existing salt ponds through the restoration of tidal marsh and transitional habitats; and (3) recreational opportunities associated with the restored habitat. Specifically, the Project would achieve the District's objective to construct a levee that protects the community up to the 1-percent tidal flood event and ecosystem restoration in the study area that takes into consideration future sea level rise and planning constraints.

To meet these goals, the Project proposes the construction of an engineered levee, restoration of Ponds A9-15 and A18, and the creation of new recreation features. The new levee would be constructed up to an elevation of 15.2 feet along existing salt pond berms – the eastern border of Pond A12 and southern borders of Ponds A13, A16, and A18. Additional flood risk management features include a flood gate for the Union Pacific Railroad crossing and a tide gate closure system at Artesian Slough. Restoration at Ponds A9–A15 and A18 will consist of breaching existing salt pond berms, guided by results of monitoring and adaptive management from other South Bay restoration, to establish tidal connection with San Francisco Bay. A 30:1 ecotone will be built adjacent to the levee in Ponds A12/A13 and A18, which will provide transitional habitat for endangered species. Recreation features include two pedestrian bridges, access to an unpaved trail on the improved levees, connection of the new levee trail to the Bay Trail network, and viewing platforms, interpretive signs, and benches.

B. Environmental Review Process

The Integrated Document contains a description of Project elements, information on the Project setting, assessment of impacts and proposed mitigation and standard measures designed to reduce such impacts. Decisions about Project objectives, feasible alternatives, and the scope of the Integrated Document are based on input from environmental assessments, meetings, the public participation process, and resource agency meetings.

In accordance with Public Resources Code Section 21167.6, subdivision (e), the record of proceedings for the District's decision on the Project includes the following documents:

- Notice of Preparation, January 2006;
- Revised Notice of Preparation, August 2014;
- Draft Interim Feasibility Report and Environmental Impact Statement / Report (December 2014) and all appendices thereto;

- Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report (December 2015) and all appendices thereto;

- All written comments received in response to, or in connection with, environmental documents prepared for the Project, including responses to the Notice of Preparation and Revised Notice of Preparation,

- Public Comments and Responses on the Draft Integrated Document;

- Documents cited or referenced in the Draft Integrated Document and Final Integrated Document;

- All findings adopted by the District for the Project;

- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the Project prepared by the USACE, USFWS, CSCC, District or consultants to the project partners with respect to the District's compliance with CEQA and with respect to the District's action on the Project;

- Any recordings of public meetings, public workshops and public hearings held by the District in connection with the Project; and

- Any other materials required for the record of proceedings by Public Resources Code Section 21167.6, subdivision (e).

Copies of the Final Integrated Document are in the District's library and on file along with the planning and other District records, minutes, and files constituting the record of proceedings, and are incorporated herein by this reference. The Board designates the Clerk of the Board of Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118, as the custodian of documents and record of proceedings on which the decision was based.

1. Development of the Draft EIR

   A Notice of Preparation (NOP) of the Draft EIR was submitted to the California Office of Planning and Research (OPR) in January 2006. The NOP was distributed to responsible and trustee agencies, and other interested parties. The purpose of the NOP was to solicit comments from public agencies on issues to be considered in the Draft EIR. A revised NOP was circulated in August 2014 to solicit comments again after the scope of the Project was reduced.

   Public comments were received by mail and e-mail during 30-day public scoping periods following the mailing of both NOPs. A public scoping meeting was held on January 25, 2006 in Milpitas to solicit comments on environmental issues to be addressed in the EIR. Issues raised in the scoping meeting were addressed in the Draft Integrated Document.

   The Draft Integrated Document was completed and a Notice of Completion was filed with the Office of Planning and Research for agency and public review on December 18, 2014. The 45-day public review period was extended an additional 21 days to February 23, 2015. A public meeting to discuss the document was held at George Mayne

Elementary School in Alviso on January 14, 2015. Copies of the Draft Integrated Document were available for public review on the District's website, the USACE website, and hardcopies at the Milpitas Public Library, Alviso Public Library, and at the District.

2. Response to Comments

Forty comment letters were received on the Draft Integrated Document, including those from:

- Seventeen Federal, State, and local agencies
- Two for-profit businesses (Cargill and PG&E)
- Twelve nongovernmental organizations
- Nine individuals

All comments on the Draft Integrated Document were considered and evaluated. Written responses to all comments on the Draft Integrated Document are included in Appendix I of the Final Integrated Document. Copies of the responses to comments were provided to all commenters in November 2015, which is at least 10 days prior to the Board considering certifying the final EIR.

C. Changes from the Draft to Final Integrated Document

The Final Integrated Document reflects revisions to the Draft Integrated Document made, if necessary and/or appropriate, to address comments received during public circulation. The major changes to the Final Integrated Document are summarized below and are primarily the result of the public and USACE internal review as discussed in the Final Integrated Document. Other changes to the document are discussed in Appendix I (Response to Comments) of the Final Integrated Document.

- The Draft Integrated Document stated that the USFWS would be responsible for implementing ecosystem restoration and recreation features on its lands. Based on updated guidance from the USACE, the Final Integrated Document was updated to reflect construction of all levee and tidal restoration features (for Ponds A9–A15 and A18) as being recommended for and collectively undertaken by all project sponsors.

- Financial and cost assumptions were updated.

- To consolidate the Project description, Chapter 3 *Alternative Plan Formulation, Evaluation, Comparison, and Selection* was refined to include all features touched on in other document sections for each of the alternatives that were carried through the environmental review process.

- Many of the comments expressed concern about the proposed tide gate closure system on Artesian Slough. It is recognized that little detail was provided in the Draft Integrated Document as to how the tide gate closure system would look and operate. Much of this detail still needs to be developed based on the technical discussions with City of San José staff as to how the Wastewater Facility is expected to operate in the future; however the basic premise of the tide gate closure system, which is to allow regular flows in Artesian Slough and its secondary channel while blocking extreme tides that could flood adjacent upland areas, has been further clarified in Chapter 3 *Alternative*

Plan Formulation, Evaluation, Comparison, and Selection of the Final Integrated Document. In addition, an error in the Draft Integrated Document, which referred to the possibility of "seasonal closures" of the tide gate closure system, was removed, and discussion was clarified to limit planned closure or near-closure of the tide gate closure system at extreme tidal and storm events only.

- The Executive Summary found in Section S.3 *Executive Summary* was substantially shortened per comments from internal USACE reviewers.

D. Errata to the Final Integrated Document

The District has prepared an errata to correct information in the Final Integrated Document after the USACE released the document in December 2015. The Board has considered the errata along with and as a part of the Final Integrated Document before making the CEQA findings.

II. SIGNIFICANT IMPACTS WHICH CAN BE MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

The Integrated Document identified a number of significant environmental impacts that, absent the adoption of mitigation measures, could occur with the implementation of the Project. The Integrated Document concludes that the Project would result in significant impacts on hydrology, water quality, biological resources, hazards and hazardous materials, noise, and cultural resources.

The Board finds that, in response to each significant effect identified in the Integrated Document and listed in this section, all feasible changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen these environmental effects. With implementation of the proposed mitigation measures described in the Final Integrated Document and listed below, the proposed Project is determined to have less-than-significant impacts on these resources.

Hydrology

Impact: **HYD-1 - Alter existing drainage patterns in a manner that would result in scour that could cause substantial erosion or siltation**

Modeling results indicate that substantial scour could occur in Coyote Creek between Calaveras Point and Pond A9 by 2067, primarily as the result of restoring Ponds A9 through A15 to tidal action and the corresponding increase in tidal prism. The patterns and magnitude of scour predicted through the analysis are consistent with the scour observed following the breach of the Island Ponds. This predicted scour could affect the structural integrity of infrastructure in and around the channel where the scour occurs including the railroad bridge piers and the PG&E infrastructure in and near Coyote Creek.

Mitigation: These following measures would be implemented only upon discovery of impacts from the Project, and armoring measures would be implemented only when all other reasonable alternatives have been deemed impractical.

M-HYD-1a: For any unforeseen excessive scour on the side slopes and crown of the levee, levee maintenance will be adjusted or levee improvements will be implemented (e.g., raise or widen the shoulder or armor the levee).

M-HYD-1b: For unforeseen excessive scour at the levee toe, natural and geotextile fabric, and/or rock armoring, will be placed to prevent further erosion.

M-HYD-1c: A plan for protecting the Union Pacific Railroad bridge crossing Coyote Creek will be developed prior to the start of construction and implemented if necessary based on monitoring. Possible measures to protect the bridge include:

- Modify the bridge structure, such as by constructing new pilings and underpinnings, to accommodate the scour.
- Place rock armoring across the channel for some distance upstream and/or downstream of the bridge to limit scour at the bridge supports and approaches.
- Place rock armor along the bed and banks of the channel at the bridge and along the bed and railway embankment on both sides of the bridge to limit scour.

Mitigation Effectiveness: The above mitigation measures would reduce the impact to a less than significant level by requiring actions such as placement of geotextile fabric, rock armoring, or new pilings to protect levees or structures if scour is identified.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects from scour. The Board finds that Mitigation Measures **M-HYD-1a**, **M-HYD-1b**, and **M-HYD-1c** are feasible and will adopt them as described in the Final Integrated Document. These measures will be incorporated into the Mitigation Monitoring and Reporting Program to ensure their implementation. With these measures in place, the impacts from scour will be reduced to a less than significant level.

Water Quality

Impact: **WAT-01 - Result in a violation of any water quality standard or waste discharge requirement**

Salinity: Ponds A12, A13, and A15 have recently been operated as managed ponds to maintain higher salinity levels. When these ponds are initially breached and bay water infiltrates the former salt ponds, there is a potential that the salinity of adjacent waters (slough and bay waters) may temporarily increase above 44 parts per thousand (the standard in WDR Order No. R2-2008-0078).

Mitigation: **M-WAT-1a:** Salinity Control – Discharge water from Ponds A12, A13, and A15 after breaching levees will be limited to a maximum salinity of 44 parts per thousand. Breaching will done in a manner that allows for the slow release of pond water during high tide to ensure mixing and dilution. Salinity will be monitored at the time of breaches of levees around Ponds A12, A13, and A15. Corrective

measures, such as slowing the release of the more-saline water, will be implemented as needed to minimize the potential effects on receiving waters.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by requiring the monitoring of salinity while breaching Ponds A12, A13, and A15, and requiring corrective actions if salinity exceeds 44 parts per thousand.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects from high salinity. The Board finds that Mitigation Measure **M-WAT-1a** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, impacts from excessive salinity will be reduced to a less than significant level.

Impact: **WAT-01 - Result in a violation of any water quality standard or waste discharge requirement**

Dissolved Oxygen – Reductions in dissolved oxygen have been identified as a concern in several locations where circulated pond waters would enter receiving water bodies. This concern arises from the potential that pond water may have high productivity during warmer times of the year, and the resultant biological oxygen demand may affect dissolved oxygen levels in sloughs, creeks, and portions of the bay proper. Even though the project partners are committed to meeting Basin Plan Water Quality Objectives for dissolved oxygen (AMM-WAT-16), it is possible that restoration of the ponds may result in discharge water at or below the dissolved oxygen Water Quality Objective, resulting in a significant impact.

Mitigation: **M-WAT-1b:** Dissolved Oxygen Control – Discharge waters from the ponds will maintain a minimum dissolved oxygen of 5 mg/L. To ensure that dissolved oxygen does not drop below 5 mg/L, discharge water will be monitored from Pond A12 to ensure minimum dissolved oxygen is maintained. If dissolved oxygen levels fall below 5 mg/L measures will be implanted to increase dissolved oxygen levels in Pond A12. Measures might include solar aerators, harvesting dead algae, or installing flow diversion baffles to redirect the flow near the area of discharge.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by requiring the monitoring of dissolved oxygen and requiring corrective actions if dissolved oxygen level falls below 5 mg/L.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects from low dissolved oxygen. The Board finds that Mitigation Measure **M-WAT-1b** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, impacts from the violation water quality standard for dissolved oxygen will be reduced to a less than significant level.

Biological Resources

Impact: **TBR-2 - Have an effect on candidate, sensitive, or special-status species**

Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew. The removal of vegetation that salt marsh harvest mouse (SMHM) and salt marsh wandering shrew use for cover, in additional to the direct mortality from construction equipment and earth movement, could impact individuals of these species. Impacts would be minimized by conducting pre-construction surveys to determine if SMHM or salt marsh harvest shrew are present in the construction area, and establishing buffers if they are (AMM-TBR-3); staging outside their habitat (AMM-TBR-4); minimizing the footprint of activities (AMM-TBR-5); installing exclusionary fencing around construction areas to keep sensitive species out (AMM-TBR-6); requiring a biological monitor to look for sensitive species during construction, with the ability to halt construction if necessary (AMM-TBR-7); training workers about species that may be encountered (AMM-TBR-12); and limiting the speed of vehicles adjacent to habitat for the species (AMM-TBR-19).

Population densities for these species are low, and impact areas amount to less than 4 acres in tidal areas, so few individuals are expected to be affected by the Project construction. In addition, individuals within the construction footprint would tend to naturally move to adjacent undisturbed habitat to seek shelter, can be moved into these areas if needed, or can be captured for relocation if found on federal land. However, the loss of any individuals would be a significant impact.

Mitigation: **M-TBR-2a: Construction Avoidance Measures for Salt Marsh Harvest Mouse**: To minimize or avoid the loss of individual SMHM from any excavation, fill, or construction activities in suitable habitat within tidal marsh areas, which will also protect salt marsh wandering shrew) the following measures will be implemented:

- Vegetation removal will be limited to the minimum amount necessary to permit the activity to occur.
- Sufficient pickleweed habitat, as determined by a USFWS-approved biologist, will remain adjacent to the activity area to provide refugia for displaced SMHM.
- Silt fences will be erected adjacent to construction areas to define and isolate potential SMHM habitat.
- Vegetation removal where SMHM may occur, including salt and brackish marsh vegetation, both tidal and non-tidal, consisting primarily of pickleweed or with a strong admixture of pickleweed and other halophytes, will start at the edge farthest from the salt marsh and work its way toward the salt marsh. This method of removal provides cover for SMHM (and the salt marsh wandering shrew) and allows individuals to move toward the salt marsh as vegetation is being removed. On Federal lands (the Refuge), SMHM may be moved into adjacent undisturbed vegetation or else captured and relocated, based on the provisions of the BO and coordination with the USFWS Ecological Services office. In areas not under Federal ownership, the State of California Fish and Game Code would apply and must be complied with. Under this code, SMHM is a Fully Protected species and cannot be captured except under permit for scientific purposes. This means that capture and relocation of this species would not be allowed for this Project in these areas.

- In areas where SMHM habitat extends in a highly linear fashion with completely unsuitable habitat (bare ground or water) on both sides, such as portions of levee faces and along the levee located southeast of Pond A18, removal of vegetation would not necessarily provide a good escape route for any SMHM that may be present. Individuals discovered during vegetation clearance would therefore be captured and relocated in consultation with the USFWS. However, capture and relocation would not be available as an avoidance measure on non-Federal lands.
- On non-Federal lands impact areas would be assessed to determine which vegetation has the potential to harbor SMHM. Next, this vegetation would be removed manually on a gradual and progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. This would be done over a period of several days to 1 week prior to construction to allow individual SMHM to relocate to remaining vegetation as they seek shelter. A biologist would monitor vegetation removal and would make specific recommendations with respect to the rate of vegetation removal, whether vegetation needs to be retained temporarily in certain areas to provide temporary shelter and facilitate dispersal of mice into habitat outside the impact area, and whether temporary berms may need to be constructed over borrow ditches to allow mice to disperse across channels.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by maintaining adequate areas of habitat near construction activity and employing construction techniques that allow SMHM and salt marsh wandering shrew to escape to areas with cover.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on SMHM and salt marsh wandering shrew. The Board finds that Mitigation Measure **M-TBR-2a** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts to salt marsh harvest mouse and salt marsh wandering shrew will be reduced to a less than significant level.

Impact: **TBR-2 - Have an effect on candidate, sensitive, or special-status species**

Western Snowy Plover. The levee alignment abuts areas that provide suitable nesting habitat for western snowy plovers. Direct impacts on western snowy plovers would include the loss of a small amount of habitat in the impoundment between Pond A12 and the Union Pacific Railroad tracks. Indirect impacts would occur if snowy plovers do not nest in the impoundment, or nest in a reduced portion of the impoundment, as a result of the raising of the levee along Pond A12. Impacts would be minimized by conducting pre-construction surveys to determine if western snowy plovers are present in the construction area, and establishing buffers if they are (AMM-TBR-3); staging outside its habitat (AMM-TBR-4); minimizing the footprint of activities (AMM-TBR-5); installing exclusionary fencing around construction areas to keep sensitive species out (AMM-TBR-6); requiring a biological monitor to look for sensitive species during construction, with the ability

to halt construction if necessary (AMM-TBR-7); monitoring for plovers in managed ponds and adjusting water levels to ensure that no nests are flooded (AMM-TBR-9); training workers about species that may be encountered (AMM-TBR-12); and limiting the speed of vehicles adjacent to habitat for the species (AMM-TBR-19).

Western Snowy Plover may self-relocate during construction and return to the area once construction is complete. Constructing this segment and pond preparation is not expected to affect this species when they are foraging, and construction would not occur during the nesting season if nesting birds are present.

One of the potential steps in preparing ponds for breaching is drying of the area in order to access the pond with equipment to construct berms or ditch blocks. However, plovers use dry pond bottoms, isolated islands, and levees in salt production and managed ponds for nesting. Therefore, this step would be dependent on relative closeness to snowy plover nesting season and/or if bird access to area can be restricted, as dried pond areas invite snowy plover nesting, which can halt construction.

Based on the above, it is not expected construction of the levee or pond preparation would significantly affect western snowy plovers. However, because this species is federally threatened and due to this species' low population numbers, any impacts to this species involving direct take or reduction in suitable foraging or nesting habitat is considered significant.

Mitigation: **M-TBR-2b: Construction Avoidance Measures for Western Snowy Plovers**: To minimize or avoid the loss of individual western snowy plovers during levee construction:

- No activities will be performed within at least 600 feet of an active western snowy plover nest during the western snowy plover breeding season, which is March 1 through September 14 (or as determined through surveys).
- Vehicles driving on levees and pedestrians walking on boardwalks or levees will remain at least 300 feet away from western snowy plover nests and broods.
- Personnel who must stop at a specific site for brief inspections, maintenance, or monitoring activities will remain 600 feet away from western snowy plover nests and broods. Exception: Only inspection, maintenance, research, or monitoring activities may be performed during the western snowy plover breeding season in areas within or adjacent to western snowy plover breeding habitat with approval of the USFWS and the CDFW under the supervision of a qualified biologist.
- If western snowy plover chicks are present and are foraging along any levee that will be accessed by vehicles (e.g., for construction, inspection, or access), vehicle use will be under the supervision of a qualified biologist (to ensure that no chicks are present within the path of the vehicle).
- Breaching of ponds that contain suitable snowy plover habitat will not be performed during the breeding season (March 1 through September 14) unless surveys have documented that no active nests or unfledged chicks are present within the ponds to be flooded by breaching.

M-TBR-2c: Additional Measures for western snowy plover:

- Breeding habitat for snowy plover will be enhanced on an island in Pond A16. Islands were constructed in Pond A16 in 2012 and 2013 as part of Phase I activities of the SBSP Restoration Project, for the purpose of providing nesting, roosting, and foraging habitat for a variety of pond-associated bird species, including snowy plovers. Snowy plovers nested on one of these islands in 2013. However, the dark substrate of the islands, and their relatively homogeneous surfaces, could make snowy plovers on the islands relatively conspicuous to predators. The Phase I Study Project will provide small gravel (or other appropriate substrate) that will be distributed in patches on one of the islands in A16 (with the island to be selected by the Refuge), and the Project will fund the maintenance of this gravel. Pea gravel has been intentionally provided in some areas as a substrate for use by nesting snowy plovers. Gravel may make it more difficult for predators such as California gulls and northern harriers to detect plovers due to camouflage (e.g., plovers may be difficult to distinguish within the gravel from a distance) and increased topographic relief associated with the gravel and footprints left by people distributing the gravel. As a result, predation rates on both eggs and chicks are likely to be lower in areas with such gravel, and more plovers may be attracted to nest in areas with gravel. Providing gravel on an island in Pond A16 is expected to increase plover nesting abundance, and possibly nesting success, thus compensating for the adverse effects of other Project activities on nesting plovers.

- Predator management is currently performed on Refuge lands, but as partial compensation for adverse effects from levee construction on snowy plovers, the intensity of this management will be increased in Pond A16 and the NCM during the snowy plover breeding season. This enhanced predator management will include more frequent monitoring for predators nesting (e.g., gulls and corvids), roosting, or foraging in these areas islands; more frequent trapping of mammalian predators in the NCM and along Artesian Slough; and ongoing identification and implementation of deterrence or removal measures for those predators. This measure will consist of funding a predator management technician for an additional 10 hours/week during the period March 1 through September 14 (approximately 28 weeks).

Mitigation Effectiveness: The above mitigation measures would reduce the impact to a less than significant level by avoiding disturbances of plover nesting sites, protecting chicks from vehicle traffic, enhancing existing nesting habitat, and increasing management of plover predators.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on snowy plover. The Board finds that Mitigation Measures **M-TBR-2b** and **M-TBR-2c** are feasible and will adopt them as described in the Final Integrated Document. These measures will be incorporated into the Mitigation Monitoring and Reporting Program to ensure their implementation. With these measures in place, the impacts to western snowy plover will be reduced to a less than significant level.

Impact: **TBR-2 - Have an effect on candidate, sensitive, or special-status species**

Burrowing Owl. Burrowing owls could use the existing berms for nesting, although burrowing owls have not been noted to nest in any of the Project levees in recent years. Burrowing owls have historically used areas around the Alviso Marina, which is at the western end of the Alviso levee. According to the California Burrowing Owl Consortium's guidelines (1993), adverse impacts would occur if (1) disturbance or harassment occurs within 76 meters (about 250 feet) of occupied burrows; (2) burrows and burrow entrances are destroyed; and/or (3) foraging habitat adjacent to occupied burrows is degraded. Impacts would be minimized by timing construction outside of the nesting season if possible (AMM-TBR-2); conducting pre-construction surveys to determine if burrowing owls are present in the construction area, and establishing buffers if they are (AMM-TBR-3); staging outside its habitat (AMM-TBR-4); minimizing the footprint of activities (AMM-TBR-5); requiring a biological monitor to look for sensitive species during construction, with the ability to halt construction if necessary (AMM-TBR-7); training workers about species that may be encountered (AMM-TBR-12); and limiting the speed of vehicles adjacent to habitat for the species (AMM-TBR-19).

Because the presence or absence of burrowing owls is not confirmed, it is assumed that the owls could use berms that would be affected and if so, the impact is considered significant.

Mitigation: **M-TBR-2d Pre-construction Surveys and Passive Relocation of Burrowing Owls:** Prior to construction, areas that support known or suspected burrowing owl burrows will be surveyed using the protocol described in the California Burrowing Owl Consortium's Burrowing Owl Survey and Mitigation Guidelines (1993). If active burrows are identified an area buffer will be established until the young have fledged.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by avoiding nesting burrowing owls.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on burrowing owl. The Board finds that Mitigation Measure **M-TBR-2d** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts to western burrowing owl will be reduced to a less than significant level.

Impact: **TBR-2 - Have an effect on candidate, sensitive, or special-status species**

California Ridgway's Rail. California Ridgway's rail has been recorded in salt marsh habitats along Alviso Slough west of the western terminus of the Alviso North levee segment alignment. Direct disturbance to Ridgway's rail could occur from the presence of construction equipment and indirect impact may result from the loss of habitat. Impacts would be minimized by timing construction outside of the nesting season if possible (AMM-TBR-2); conducting pre-construction surveys to determine if rails are present in the construction area, and establishing buffers if

they are (AMM-TBR-3); staging outside its habitat (AMM-TBR-4); minimizing the footprint of activities (AMM-TBR-5); requiring a biological monitor to look for sensitive species during construction, with the ability to halt construction if necessary (AMM-TBR-7); training workers about species that may be encountered (AMM-TBR-12); and limiting the speed of vehicles adjacent to habitat for the species (AMM-TBR-19). Even with these measures in place, given the limited population of Ridgway's rail, the disturbance of nesting Ridgway's rails would be a significant impact.

Mitigation: **M-TBR-2e Construction Avoidance Measures for Ridgway's Rails:** To minimize or avoid the loss of individual Ridgway's rails, activities within or adjacent to Ridgway's rail habitat will not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge), when the marsh plain is inundated, because protective cover for Ridgway's rails is limited and activities could prevent them from reaching available cover.

To minimize or avoid the loss of individual Ridgway's rails, activities within or adjacent to tidal marsh areas will be avoided during the Ridgway's rail breeding season from February 1 through August 31 each year unless surveys are conducted to determine Ridgway's rail locations and Ridgway's rail territories can be avoided, or the marsh is determined by a qualified biologist to be unsuitable Ridgway's rail breeding habitat. If breeding Ridgway's rails are determined to be present, activities will not occur within 700 feet of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the Ridgway's rail calling center and any activity area is greater than 200 feet, then construction activity may proceed at that location within the breeding season. *Exception*: Only inspection, maintenance, research, or monitoring activities may be performed during the Ridgway's rail breeding season in areas within or adjacent to Ridgway's rail breeding habitat with approval of the USFWS and the CDFW under the supervision of a qualified biologist.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by avoiding rail breeding areas and stopping construction when rail habitat is limited by high tides.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on Ridgway's rail. The Board finds that Mitigation Measure **M-TBR-2e** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts to Ridgway's rail will be reduced to a less than significant level.

Impact: **TBR-2 - Have an effect on candidate, sensitive, or special-status species**

Other Nesting Birds. Nesting birds are protected under the Migratory Bird Treaty Act. Direct impacts resulting from construction activity could include direct injury or mortality of individuals (e.g., destruction of active nests). Indirect impacts, such as disturbance of nesting birds outside the footprint, are also expected. Timing construction outside of the nesting season (AMM-TBR-2) would eliminate direct

impacts on nesting birds. Construction activities occurring during the nesting season would require preconstruction surveys by a biologist to determine the presence of active nests and the establishment of species-specific buffers around active nests until the young have fledged (AMM-TBR-3). Even with minimization measures the loss of active nests or chicks would be a significant impact.

Mitigation: **M-TBR-2f Construction Avoidance Measures for Nesting Birds:** To avoid potential impacts on nesting migratory birds, Project construction in areas that provide habitat for migratory birds will be performed outside of the bird nesting season (February 1 to September 15), where feasible. If construction must occur during this period, a qualified biologist will conduct preconstruction surveys within suitable habitat areas potentially affected by the Proposed Project. If nesting migratory birds are found during preconstruction surveys, the USACE or its construction contractor will consult with the CDFW and/or the USFWS regarding appropriate actions to comply with the Migratory Bird Treaty Act and the Fish and Game Code. Unless the CDFW and/or the USFWS specify otherwise, established protection zones will remain until young birds have fledged.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by establishing buffers around active nest sites to avoid impacts to nesting birds.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on nesting birds. The Board finds that Mitigation Measure **M-TBR-2f** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts to nesting birds will be reduced to a less than significant level.

Impact: **TBR-2 -** Have an effect on candidate, sensitive, or special-status species

Special-Status Plant Species. Congdon's tarplant, a special-status plant, has been recorded in an upland areas associated with the Wastewater Facility and in the Refuge. The levee construction would affect approximately one acre of upland habitat on which Congdon's tarplant may occur.

Construction would be limited to the already-disturbed edge of the Wastewater Facility property and the species can occupy disturbed habitat. However, since protocol level surveys have not been conducted to determine the presence of Condon's tarplant and it is known to occur nearby, it is possible for a colony to establish prior to construction, a significant impact is assumed.

Mitigation: **M-TBR-2g Conduct Focused Protocol-level Surveys for Congdon's tarplant:** Pre-construction protocol-level focused surveys shall be conducted in suitable habitat for Congdon's tarplant. These surveys shall be conducted according to the CNPS (2001), CDFG (2009), and USFWS (2003) special-status plant survey protocols. If no plants are discovered then no further mitigation is necessary.

- If Congdon's tarplant is found in the study area, consultation shall be initiated with USFWS or CDFW to finalize a mitigation plan, as appropriate. If required, the mitigation plan shall minimally include:
    - Preparation by a qualified botanist with experience in native plant restoration, mitigation, and management;
    - Description of avoidance measures, such as construction setbacks, installation of exclusionary fencing prior to and during construction, and pre-construction training of construction personnel on the identification and location of these plants. If sensitive plant species can be avoided, then no further mitigation is required;
    - If plants cannot be avoided, compensatory mitigation for unavoidable impacts, which will include preservation or creation;
    - Creation of a new population using propagules collected from the impact site or protection of an existing population at a ratio of 2 acres preserved for each acre removed or as determined in agency consultation; including clearly defined performance criteria focusing on plant establishment and nonnative species control measures and locations and procedures for restoration. Plants shall be salvaged only where feasible as determined by a qualified botanist. Plant salvage will not be conducted in lieu of population creation using local propagules or population preservation.
    - Specification of a minimum 5-year post-construction maintenance and monitoring plan for any plant salvage or habitat creation to ensure that the plant establishment performance criteria are met. The monitoring program shall include potential remedial action measures. Annual reports and a final report shall be prepared and submitted to USFWS or CDFW, as appropriate, to document the success of the mitigation;
    - Secure a source of funding for mitigation and monitoring operations; and
- Alternatively, plant credits may be purchased at a mitigation bank at a ratio of 2:1 at a local site.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by first avoiding Congdon's tarplant whenever possible, and by requiring compensatory mitigation, either through the development of a new population or through a mitigation bank, if avoidance is not possible.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on sensitive plant species. The Board finds that Mitigation Measure **M-TBR-2g** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts to Congdon's tarplant will be reduced to a less than significant level.

Hazards and Hazardous Materials

Impact: **HAZ-1 - Create a significant hazard to the public or environment through transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving release of hazardous materials**

There is the potential that previously undocumented hazardous materials could be encountered at Project sites. Excavation and construction activities at or near areas of currently unrecorded soil or groundwater contamination could result in the exposure of construction workers, the general public, and the environment to hazardous materials. While discovery of previously undocumented hazardous materials as a result of construction activities is not anticipated and considered to be unlikely, such a discovery would represent a significant impact.

Mitigation: **M-HAZ-1: Discovery of Undocumented Hazardous Materials** It is unlikely that any hazardous material will be encountered in areas that have no previous documentation of the presence or potential presence of hazardous material. However, should hazardous material be encountered unexpectedly during construction activities such as excavation and dewatering, the contractor must notify the appropriate Federal, state, and local agencies, and the site would be remediated in compliance with applicable Federal, state, and local laws. If an undocumented underground storage tank is encountered, a licensed contractor will be retained to remove the UST and any associated contaminated material. In the event that contamination is encountered, the contractor will notify appropriate agencies and remediate the site consistent with state and local regulations.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by requiring consultation with appropriate federal, state, and local agencies to ensure undocumented underground storage tanks or other contamination are properly remediated if discovered.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects from hazardous materials. The Board finds that Mitigation Measure **M-HAZ-1** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts from undocumented hazardous materials will be reduced to a less than significant level.

Impact: **HAZ-3 - Be located on a site that is included on a list of hazardous materials sites and as a result, create a significant hazard to the public or the environment**

The Project is aligned near two sites with known contamination (the San Jose/Santa Clara Water Pollution Control Plant and the Zanker Material Processing Facility). The Wastewater Facility treats wastewater and its property includes inactive and active biosolids treatment lagoons. The Wastewater Facility has documented historical and long-term use of hazardous materials in multiple hazardous materials databases, and has ongoing reporting of hazardous materials

storage and usage. The levee alignment is adjacent to the Wastewater Facility property and Staging Areas 1 and 2 for the Project are located on the Wastewater Facility property. With respect to the Zanker Material Processing Facility, a groundwater plume of volatile organic compounds has been located in the northernmost corner of this facility. Staging Area 3 is located near this plume. If the locations of the proposed levee alignment or staging areas change to include these (or other) previously identified potential hazardous waste sites, this would be a significant impact.

Mitigation: M-HAZ-3: Construction Near Hazardous Sites - All sites listed in Table 4.8-2 *Hazardous Materials Consideration for Flood Risk Management Alignment* that are designated as "having hazardous material concerns that are not likely to or with the potential to affect future construction" should be avoided for inclusion in this Proposed Project (AMM-HAZ-1: Avoid Hazardous Sites). Construction will be avoided in all areas where the presence or potential presence of hazardous materials has been documented previously.

If construction activities must occur in close proximity to sites where the presence or potential presence of hazardous materials have been documented previously, the USACE would re-evaluate the site to determine if a Phase II Environmental Site Assessment is necessary. If it is determined that a Phase II Environmental Site Assessment must be completed, the USACE would conduct a Phase II Environmental Site Assessment for the alignment of the levee, staging areas, and other construction areas as appropriate to confirm the presence or absence of hazardous materials. The results will determine the existence of actionable concentrations of released hazardous materials. This would further reduce the risk of exposure to workers and the public during construction and assist in the remediation planning. If necessary, the assessment would include an analysis of soil or groundwater samples if an analysis had not yet been completed during previous investigations before construction activities begin. Prior to commencement of the Phase II Environmental Site Assessment, the USACE would develop a contingency plan to address the hazardous materials and work safety requirements for the proper handling, storage, treatment, and disposal of any contaminants present at an actionable level consistent with Federal, State, and local laws. Based on the results of the Phase II Environmental Site Assessment, additional measures, such as remediation, disposal, containment, and special safety precautions for workers, may be required consistent with Federal and State regulations.

If contamination is present, safety measures would be implemented to protect workers, and soil would be further characterized to determine the nature and extent of contamination, guide disposal options, and potentially limit placement and reuse of soil on site consistent with mitigation measure M-HAZ-01.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by avoiding known hazardous materials sites, and if not possible to avoid such sites, requiring the preparation of a Phase II Environmental Site Assessment to properly remediate the site prior to construction.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects from hazardous materials sites. The Board finds that Mitigation Measure **M-HAZ-3** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts from known hazardous materials sites will be reduced to a less than significant level.

Noise

Impact: **NOI-1 - Expose people to or generate noise levels in excess of standards established by the city and county** and **NOI-2 - A substantial temporary or periodic increase in ambient noise levels**

The nearest noise receiver to work sites is the Alviso Marina County Park located near Hope Street and Mill Street, which is about 50 feet from the southwest corner of the construction area. Projecting the calculated noise level to a distance of 50 feet results in an estimated construction noise level of 84 dBA Leq at this receiver. The other identified receiver is the Refuge Environmental Education Center located in the study area at the north end of Grand Boulevard, which is about 200 feet from the construction area. The projected construction noise level is estimated at 72 dBA Leq at this receiver. Both of these receivers are recreational land uses.

The Project would limit truck trips to between 9 AM and 3 PM each day (AMM-NOI-1) and require implementation of minimization measures to reduce noise disturbances such as equipping equipment and vehicles with adequate mufflers and noise control devices, limiting idling of vehicles, and prohibit the use of jake breaks in residential areas (AMM-NOI-3). Even with these measures in place the Project will exceed local noise standards and cause significant temporary increases.

Mitigation: **M-NOI-1:** The contractor will obtain a conditional-use permit from the City of San José to allow exceedances of the noise standard during construction activities. The contractor will comply with all provisions of the conditional-use permit, which are expected to include time-of-day restrictions, equipment setback requirements, notification requirements, equipment maintenance, and equipment muffler requirements. The contractor will monitor construction-related noise levels for a period of at least one hour daily during active construction for activity that is within 100 feet of the Alviso Marina, the Environmental Education Center, or any residences. If noise levels exceed the levels permitted through the conditional-use permit or City of San José standards, the contractor will reduce the numbers of noise-generating equipment in use at any one time or install temporary noise barriers. After necessary noise control measures are implemented, the contractor will continue to monitor noise levels for a period of at least one hour daily during active construction to ensure that noise levels remain within the allowable standard(s).

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by requiring noise monitoring near sensitive receptors and corrective actions to reduce noise levels as necessary.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects from construction noise. The Board finds that Mitigation Measure **M-NOI-1** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impacts from noise will be reduced to a less than significant level.

Cultural Resources

Impact: **CUL-1 - Cause a substantial adverse change in the significance of a historical or archaeological resource**

The Alviso Salt Pond Historic Landscape would be adversely affected by ecosystem restoration activity associated with the Project. The Project would require removing and/or altering part of the salt pond and levee complex as part of restoring selected areas to tidal marsh. The impacts would take place over time as restoration activity is phased, but, when all ecosystem restoration construction activity is considered collectively, there would be an adverse effect on the historic landscape from implementation.

Mitigation: **M-CUL-1:** In 2012, the USFWS consulted with the California State Historic Preservation Office (SHPO) regarding the restoration program for the entire Alviso Unit under the SBSP Restoration Project, and consequently satisfied the requirements of Section 106 of the National Historic Preservation Act (NHPA), pursuant to 36 C.F.R. § 800, by executing a Memorandum of Agreement that included a Historic Property Treatment Plan (HPTP). Information from the USFWS Section 106 compliance has direct impact on the current Shoreline Study effort to comply with Section 106. Through ongoing consultation with SHPO, the Shoreline Study may have to develop a HPTP for Section 106 purposes to resolve any unforeseen adverse effects to the Alviso Salt Pond Historic Landscape prior to initiation of construction.

Mitigation Effectiveness: The above mitigation measure would reduce the impact to a less than significant level by preparing and implementing a Historic Property Treatment Plan in coordination with the California State Historic Preservation Office to minimize or compensate for the impacts to the Alviso Salt Pond Historic Landscape.

Finding: Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on cultural resources. The Board finds that Mitigation Measure **M-CUL-1** is feasible and will adopt it as described in the Final Integrated Document. This measure will be incorporated into the Mitigation Monitoring and Reporting Program to ensure its implementation. With this measure in place, the impact to cultural resources will be reduced to a less than significant level.

III. SIGNIFICANT IMPACTS WHICH CANNOT BE FULLY MITIGATED.

The Project will cause or contribute to several significant environmental effects for which feasible mitigation measures would not be able to reduce the impacts to a level of less than significant. These significant and unavoidable impacts are described below.

A. Exceedance of nitrogen oxides and reactive organic gas emission thresholds

Construction of the Project would result in a temporary increase in exhaust emissions from construction and transportation equipment. Construction emissions were quantified using the California Emissions Estimator Model (CalEEMod). Both nitrogen oxides and reactive organic gas would exceed BAAQMD emission thresholds for maximum pounds per day from the large amount of material to be moved and placed to form the new levees and transition habitat. The contractor will be required to limit idle time of diesel powered equipment (AMM-AIR-2), utilize cleaner construction equipment (e.g., Tier 4), or diesel particulate filters if older equipment is used (AMM-AIR-5), and use electricity, rather than portable diesel-powered generators, where possible (AMM-AIR-6). However, even with these minimization measures the construction of the levee and ecotone would result in significant emissions of nitrogen oxides and reactive organic gas.

Mitigation: The following mitigation measures are needed to reduce reactive organic gas and nitrogen oxides emissions from construction equipment:

M-AIR-1a – Prior to the start of construction, the contractor shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a Project-wide fleet average of 20 percent nitrogen oxides reduction and 45 percent particulate matter reduction compared to the most recent Air Resource Board fleet average. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.

M-AIR-1b: The contractor will require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of nitrogen oxides and particulate matter and that all equipment meets the Air Resource Board's most recent certification standard for off-road heavy-duty diesel engines

Mitigation Effectiveness: The mitigation measures will require the contractor to achieve a Project-wide fleet reduction of at least 20 percent for nitrogen oxides reduction and 45 percent for particulate matter reduction compared to the most recent state Air Resources Board fleet average; and require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of nitrogen oxides and reactive organic gas.

Implementing these two mitigation measures would reduce construction-related air quality impacts by about 15 to 20 percent overall compared to uncontrolled emissions; however, based on the

modeling results these measures would not be able to reduce peak daily nitrogen oxides and reactive organic gas emissions below the BAAQMD threshold of 54 pounds per day. The impact would remain significant after mitigation.

Finding: The Board finds that construction-related emissions of criteria pollutants would be significant even with the implementation of mitigation. There are no other feasible measures available to further reduce construction emissions. Notwithstanding significance, these emissions would be temporary and permanently cease upon completion of construction.

B. Cumulative loss of pond habitat used by pond-specialist bird

The Project will result in the loss of a substantial amount of human-created managed pond habitat that is used by managed-pond-specialist waterbirds (such as eared grebe, Wilson's phalarope, red-necked phalarope, and Bonaparte's gull) for foraging and roosting. This impact would not be significant in the short term because not all of the ponds would be converted. As proposed, over time all the ponds in the study area would be converted. The South Bay Salt Ponds Restoration Project and other tidal restoration projects in south bay have been restoring other managed ponds to tidal influence. Cumulatively, when considered with all other foreseeable tidal restoration projects planned for the bay, there would be a loss of substantial amount of managed ponds in the Alviso pond complex. Even if all the ponds in the Project area are converted to tidal wetlands, the pond specialists would have habitat in adjacent areas of the Refuge and might still forage in adjacent low-salinity habitats that are created by the South Bay Salt Ponds Restoration Project and other brackish open waters. The magnitude of the effect would depend on the long-term success of the Project and other restoration projects in the region, population trends, and adaptability of the pond-specialist species. The cumulative loss of managed pond habitat could adversely affect pond specialists. Due to the scale of the Project relative to other projects, the incremental impact of the Project would be considered cumulatively considerable. This impact could only be mitigated by replacing pond habitat being converted to tidal marsh. The conversion of other habitat to pond would be inconsistent with the objectives of the Project, so no measures are available to lessen this impact.

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Adaptive management to be implemented as part of the Project and the South Bay Salt Ponds Restoration Project, together with ongoing long-term management of the study area through the Refuge operations will help manage long-term populations. The adaptive management plans are designed to minimize significant impacts to pond-specialist birds, but given the long-term uncertainty of population trends the impact is still considered significant.

Finding: The Board finds that there are no feasible mitigation measures or alternatives available to reduce the impact to a level of less than significant.

C. Cumulative Noise

Noise impacts from construction and operation of the Project would be limited to the immediate vicinity of the Project. Other future construction activities that could occur include the South Bay Salt Ponds Restoration Project Phase II activity

associated with Ponds A19, A20, A21, and A8 and development consistent with the Wastewater Facility's Master Plan to areas adjacent to the Project area. Ongoing noise sources in the Project vicinity include traffic noise associated with local roads and airport noise from the international airport. Construction activities associated with the South Bay Salt Ponds Restoration Project and Wastewater Facility development would be required to comply with applicable noise standards and mitigate for significant impacts if any. Further, it is unlikely that the Project construction would be concurrent with either the South Bay Salt ponds Restoration Project or the Wastewater Facility construction, and even if construction were concurrent, it is unlikely that the combined noise effect of the projects would exceed noise standards at the same receiver at the same time. However, because of the proximity of residential uses to area roads, the airport, the Union Pacific Railroad track, and the wastewater facility, cumulative noise impacts experienced by people in Alviso could be significant, particularly if Project construction activity is concurrent with other construction activity.

As described in the Final Integrated Document, truck delivery and regular construction work hours would be restricted from 9 am to 3 pm (AMM-NOI-1). In addition, the contractor will be required to implement practices to minimize disturbances to the neighboring residents (AMM-NOI-3); these practices include equipping internal combustion engines with mufflers, equipping construction equipment with noise control devices, limiting the arrival and departure of trucks hauling material to the hours of construction, etc. Mitigation measure M-NOI-1 (discussed in Section II above) would further reduce the incremental contribution of the Project to overall noise in the area, but given all potential concurrent noise sources, the cumulative impact would remain significant.

Finding: The Board finds that there are no further feasible mitigation measures or alternatives that could be identified to reduce the impact to a level of less than significant.

IV. ALTERNATIVES ANALYSIS

CEQA requires that an EIR describe a range of reasonable alternatives to a project, or to the location of a project, which could reduce potential impacts while still attaining the basic objectives of the project, and to evaluate the comparative merits of the alternatives. The CEQA Guidelines also require that the range of alternatives considered include a "No Project" alternative. For comparative purposes, the objectives of the Proposed Project are set forth in Section I. A. of these findings, and impacts are analyzed in Sections II and III above. As set forth below, the District and its project partners considered various alternatives in selecting the Proposed Project.

Fifty-three management measures and alternatives were considered in the planning process, prior to preparing the Draft Integrated Document. Many of these measures were eliminated from further consideration because they did not meet all Project objectives, there were logistical issues with their implementation which made them infeasible, or they were already being implemented to the extent practical. Table 3-4.1 *Management Measures* in the Integrated Document lists these 53 measures and alternatives. The remaining feasible measures and alternatives were consolidated and refined for further analysis.

The USACE, as part of their Feasibility Report, examined the cost effectiveness of the feasible alternatives to determine a National Economic Development (NED) alternative for the flood protection element and National Ecosystem Restoration (NER) alternative for the ecosystem functions element. From this analysis a suite of alternative Project elements was established. For the levee between Alviso Slough and Artesian Slough three potential alignments were considered: Alviso North, Railroad Spur, and Alviso South. Two alternative methods were established to cross Artesian Slough: levee or tide gate. Three alignments were considered for the segment between Artesian Slough and Coyote Creek: WPCP north, WPCP south, and treatment plant ring levee. A suite of levee heights was also considered ranging from 11 feet to 15 feet. From this analysis the USACE identified a 12.5 foot high levee as part of NED alternative. This height maximized net benefits in the analysis. The District selected a 15.2 foot levee height as the preferred alternative since this is the minimum height necessary to provide two feet of freeboard above predicted maximum tide level in 2067 (the end of the period of analysis).

Ecosystem restoration options included opening all or various groups of ponds, basic or enhanced preparation of the ponds prior to breaching, and three potential transition habitat slopes – a 50-foot bench, a 30:1 slope and a 100:1 slope. A cost-benefit analysis prepared for restoration options determined that benefits would be maximized by opening all the ponds in the Project area to the tides. Enhanced pond preparation does not substantially increase benefits, especially in relation to costs, so this alterative was not brought forward. The USACE determined that the 50-foot bench maximized benefits as transition habitat for the NER. However, the District and other project partners preferred the greater restoration potential provided by the 30:1 slope. The 100:1 slope for transition habitat was determined to be too costly (over 10 times the cost of the 30:1 slope), making this alternative economically infeasible, and result in much greater fill of waters, making it undesirable from environmental and policy perspectives.

A set of recreational elements was established to provide the maximum feasible public access to the bay as required by the Bay Development and Conservation Commission while protecting sensitive species in the marshes of the south bay.

From these potential components five alternatives were assembled for analysis under CEQA and NEPA. Alternative 1 is the No Project / No Action alterative. Alternative 2 is the USACE NED/NER Project which includes the Alviso North and WPCP south levee alignments with a 12.5- foot levee and 50-foot wide bench, flood gate across Artesian Slough, basic restoration of all ponds in the Project area and the recreational elements. Alternative 3 is the District preferred Project (referred to as the Locally Preferred Project in the Integrated Document) which includes the Alviso North and WPCP south levee alignments with a 15.2- foot levee with a 30:1 slope ecotone, flood gate across Artesian Slough, basic restoration of all ponds in the Project area and the recreational elements. Alternative 4 is the same as Alternative 3, except with the Railroad Spur levee alignment between Alviso and Artesian Sloughs and the bench transition habitat; and Alternative 5 considers the same with the Alviso South alignment.

The Board rejects Alternative 2 as it would not meet the District's objective of providing the community tidal flood protection up to the 1-percent event and freeboard required for Federal Emergency Management Agency (FEMA) levee accreditation throughout the life of the Project. This alternative also does not meet the District's objective to provide ecosystem restoration that takes into consideration future sea level rise.

The Board rejects Alternative 4 and 5 because they do not meet the District's objective to provide ecosystem restoration that takes into consideration future sea level rise. These alternatives also result in significant impacts to habitat in New Chicago Marsh and significant aesthetic impacts to the town of Alviso, which are avoided by the preferred alternative.

The Board finds the following with regard to the alternatives analyzed in the Integrated Document, as discussed below:

1. That the Final Integrated Document describes a reasonable range of alternatives to the Project as proposed.

2. The Board has evaluated the comparative merits of the alternatives and rejected them in favor of the Project (Alternative 3).

3. There are not feasible alternatives within the District's powers that would substantially lessen or avoid the significant effects identified in Section III.

V. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Alternative 3 is identified as environmentally superior. Alternative 2 and 3 both avoid land use and biological impacts to New Chicago Marsh from a levee alignment that splits the marsh (Alternative 4) and leaves the marsh at risk from tidal flooding (Alternatives 4 and 5). Also avoided are aesthetic impacts from locating the levee close to the community of Alviso that would block views (Alternatives 4 and 5). The No Action Alternative is deemed to have substantial long-term impacts to flood risk and terrestrial biological resources when compared to the action alternatives, and not considered environmental superior to Alternatives 2 and 3.

Alternative 2 would have incrementally fewer impacts that Alternative 3 based on the slightly smaller footprint of the levee. This would result in slightly fewer impacts to construction related traffic, air quality, and noise, and less area of tidal wetlands and managed ponds in the construction footprint. However, Alternative 2 does not meet the flood protection objective of the District to provide 100 year tidal flood protection over 50 years with assumed sea level rise. As Alternative 3 would meet all the Project objectives with only slightly increased impacts, with the addition of the 30:1 ecotone providing transitional habitat which provides upland refugia for endangered marsh dependent species with the consideration of sea level rise, it is the environmental superior alternative.

VI. STATEMENT OF OVERRIDING CONSIDERATIONS

Except for temporary air and cumulative noise impacts during construction, and the incremental contribution to the loss of pond habitat for pond-specialist birds, the Board finds that the EIR identifies no other significant environmental effects of the proposed Project which cannot be mitigated to levels of less than significant and further finds that all other impacts will either be avoided or reduced to a level that is both less than significant and acceptable. The air quality, cumulative noise, and cumulative impacts to pond habitat, specified above in Section III, are considered significant and unavoidable.

A. Significant and Unavoidable Impacts Remain After Mitigation

The Board finds that the construction-related noise and air impacts are temporary and an unavoidable byproduct of the need to use heavy equipment to complete the Project. The cumulative loss of managed ponds used by pond-specialist bird species could only be addressed by replacing pond habitat being converted to tidal marsh. The conversion of other habitat to pond would be inconsistent with the objectives of the Project and restoration of the south bay salt ponds.

All feasible mitigation measures will be incorporated into the Project's Mitigation Monitoring and Reporting Program which the Board will adopt along with Project approval. The Board finds that specific economic, legal, social, technological, or other considerations make infeasible any additional mitigation measures or Project alternatives to further reduce or avoid these significant impacts.

B. The Project provides long term benefits to the Project area

A key Project objective is to improve public safety through flood risk management. The proposed Project would provide tidal flood protection benefits to a population of approximately 6,000 residents and people working in the area and would provide protection from a 1-percent annual chance of exceedance flood through the end of the 50-year period of analysis (2017–2067), accounting for sea level change under the USACE "high" scenario. A structure inventory conducted as part of the economic analysis identified 1,140 structures (1,034 residential, 54 commercial, 42 industrial, and 9 public), transportation corridors, the wastewater treatment plant, and other critical infrastructure in the 0.2-percent floodplain under the USACE High sea level change scenario that defines the study area's boundaries for the tidal flood risk assessment.

In addition to the increased tidal flood risk, the area has lost substantial amounts of coastal wetlands. In the study area, the creation of commercial salt ponds along southern San Francisco Bay eliminated most of the tidal salt marsh habitat. These local tidal marsh losses are part of San Francisco Bay estuary-wide losses of approximately 90 percent of all tidal wetlands. The proposed Project would create approximately 2,900 acres of tidal marsh habitat and ecotone, thereby restoring ecological structure and function, area, and connectivity. The restored habitat would benefit special-status species such as the California-endemic salt marsh harvest mouse and Ridgway's rail, which reside almost exclusively on tidal marsh habitat. The proposed Project includes an ecotone transitional habitat feature, which would be constructed bay-ward to the proposed levee along Ponds A12, A13, and A18. Currently in San Francisco Bay, wetland-upland transition zones have largely disappeared from marshes. These features mimic the natural landform that once existed around the perimeter of San Francisco Bay and provide the functions of a distinct habitat that is now largely absent along southern San Francisco Bay. These habitat areas serve as high-tide refugia for State- and Federally-listed threatened and endangered species, such as Ridgway's rail, black rail, and salt marsh harvest mouse and also provide habitat for a unique suite of plant species. Adding this feature bay-ward of the levees would benefit the recovery of protected wetland species and help restore ecological functions. In addition, a large ecotone would buffer any maintenance actions that are necessary on the adjacent levee. The ecotone also would allow inland migration of the restored marshes in response to sea level change.

The recreational benefits provided by the proposed Project include enhanced outdoor recreational opportunities and improved access to the Refuge and adjacent restored marsh areas for tourists and residents. The proposed recreation features are estimated to increase the annual number of visitors to the Refuge by 20 percent and would create key connections in the San Francisco Bay Trail.

C. The benefits of the Project outweigh the unavoidable adverse environmental effects

In making this Statement of Overriding Considerations the Board has considered information contained in the Final Integrated Document for the Project as well as the public testimony and record of proceedings in which the Project was considered. The District has balanced the Project's benefits against the unavoidable adverse impacts identified in the Final Integrated Document.

In consideration of the existing flood risks along the South San Francisco Bay shoreline associated with lack of adequate engineered levees and the analysis of Project outcomes presented in the Final Integrated Document, the Board balances these Project benefits and considerations against the unavoidable and irreversible environmental risks identified in the Integrated Document and concludes that those impacts are outweighed by the Project benefits. Upon balancing the environmental risk and countervailing Project benefits, the Board concludes that the benefits from implementation of the Project outweigh those environmental risks, many of which are temporary. The impacts of the Project are localized to the Project vicinity, but the Project provides long term regional benefits from implementation. The remaining unavoidable and irreversible impacts of the Project are acceptable in light of economic, legal, social, technological, and other considerations set forth herein because the benefits of the Project outweigh any significant and unavoidable or irreversible environmental impact of the Project.

EXHIBIT 2

South San Francisco Bay Shoreline Phase I Study
Mitigation Monitoring and Reporting Program

Introduction

The Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report for the South San Francisco Bay Shoreline Phase I Study (Project) includes avoidance and minimizaition measures (AMMs) and mitigation measures to avoid or reduce the adverse environmental effects of the Project.

Section 21081.6 of the California Public Resources Code and Sections 15091(d) and 15097 of the CEQA Guidelines require public agencies "to adopt a reporting or monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. "

Purpose

The purpose of this Mitigation Monitoring and Reporting Program (MMRP) is to ensure the Project's compliance with all AMMs and mitigation measures designed to avoid, minimize, or compensate for significant adverse environmental impacts resulting from the Project.

Responsibilities and Duties

The responsibility and oversight of avoidance and minimizaition measures and mitigation measures is noted in the matrix below. The Project is a joint undertaking by the United States Army Corps of Engineers ("USACE"), the U.S. Fish and Wildlife Service ("USFWS"), the District, and the California State Coastal Conservancy, which are collectively referred to as the Project Partners. The USACE is responsible for project design, construction, and initial maintenance of the improvements. The District is responsible for partially funding the Project, acquiring real property interests needed for the Project, and operating and maintaining the Project's flood risk management elements after construction is complete.

The table below provides a summary of the AMMs and mitigation measures proposed for the Project and for each measure identifies the timeframe for implementation, the entity/entities responsible for implementation, and the entity/entities responsible for monitoring/oversight. The entitiy/entities responsible for implementation, at their discretion, may directly implement the measures described herein, or may delegate implementation responsibility or portions thereof to a licensed contractor or other responsible party.

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
Geology and Soils				
AMM-GEO-1 – Public Warning Signs	Public warning signs and sirens would improve public awareness and response to inundation emergencies (floods, tsunamis). This action will enhance safety for people using and working in the area.	Operations	USACE and District with the City of San Jose and Santa Clara County	District
AMM-GEO-2 – Reuse of Soils	Reuse of earth materials (existing dikes, etc.) will reduce the amount of import material, stockpile, and landfill material, which will minimize offsite soils effects	Construction	USACE and contractor	District
AMM-GEO-3 – Levee Design	New or reinforced levees or berms will be designed and constructed to avoid, reduce, or otherwise account for future settlement from liquefaction and potential for lateral spreading. This action will enhance safety for people using and working in the area.	Design	USACE	District
AMM-GEO-4 – Stop Work after Seismic Activity	In the event of an earthquake or tsunami warning, the contractor will stop all work until it is determined that conditions are safe to commence work. This action will enhance safety for people working in the area.	Construction	USACE / Contractor	District
AMM-GEO-5 – Channel Tidal Flow	Ditches will be dug to channel tidal flow into preferred locations to concentrate the erosional potential to small areas. This will minimize erosion and sedimentation effects in large areas.	Design	Project partners	District
AMM-GEO-6 – Prepare Stormwater Pollution Prevention Plan (SWPPP)	Erosion will be controlled based on the SWPPP to be prepared for the project. Implementing the SWPPP measures will minimize soil erosion and related sedimentation.	Construction	USACE / Contractor	District
Land Use and Planning				
AMM-LND-1: Minimize Disturbance	Areas of possible disturbance will be avoided or will be minimized to the smallest footprint necessary. In all cases, the footprint of disturbance will remain within the impact boundaries defined for each resource and evaluated in the impact analyses provided in Section 4.2 *Geology, Soils, and Seismicity* through Section 4.16 *Public Utilities and Service Systems*; however, additional effort will be made to further reduce impacts within these parameters. This measure will minimize the project footprint and impacts to adjacent uses.	Design and Construction	USACE / Contractor	District
AMM-LND-2: Remove Materials	All leftover construction material will be removed from the site after construction is complete. This will reduce land use incompatibilities associated with construction.	Construction	USACE / Contractor	District

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
Hydrology and Flood Risk Management				
AMM-HYD-1: Flood Warnings	Install public warning signs and sirens to improve public awareness and response to inundation emergencies (e.g., flooding and tsunamis). This action will enhance safety for people using and working in the area.	Operations	USACE and District with the City of San Jose and Santa Clara County	District
M-HYD-1a	For any unforeseen excessive scour on the side slopes and crown of the levee, levee maintenance will be adjusted or levee improvements will be implemented (e.g., raise or widen the shoulder or armor the levee).	Maintanance	Project partners	District
M-HYD-1b	For unforeseen excessive scour at the levee toe, natural and geotextile fabric, and/or rock armoring, will be placed to prevent further erosion.	Maintanance	Project partners	District
M-HYD-1c	A plan for protecting the Union Pacific Railroad bridge crossing Coyote Creek will be developed prior to the start of construction and implemented if necessary based on monitoring. Possible measures to protect the bridge include: • Modify the bridge structure, such as by constructing new pilings and underpinnings, to accommodate the scour. • Place rock armoring across the channel for some distance upstream and/or downstream of the bridge to limit scour at the bridge supports and approaches. • Place rock armor along the bed and banks of the channel at the bridge and along the bed and railway embankment on both sides of the bridge to limit scour.	Design and Maintenance	Project partners	District
Surface Water and Sediment Quality				
AMM-WAT-1: Staging Area	Establish staging areas for activities such as fueling, equipment storage, and fill storage.	Design and Construction	USACE / Contractor	District
AMM-WAT-2: Fuel Management Plan	Develop and incorporate a Fuel Management Plan.	Construction	USACE / Contractor	District
AMM-WAT-3: Turbidity Management Plan	Implement a Water Quality and Turbidity Management Plan; plan will include stormwater management.	Construction	USACE / Contractor	District
AMM-WAT-4: Pond Construction Timing	Conduct pond construction activities prior to breaching to minimize turbidity and water quality degradation.	Construction	USACE / USFWS	District
AMM-WAT-5: Hazardous Spill Plan	Develop and incorporate a Hazardous Spill Plan.	Construction	USACE / Contractor	District

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
AMM-WAT-6: Seasonal Restrictions	Implement wet-season restrictions for water quality protection.	Construction	USACE	District
AMM-WAT-7: Minimize Footprint	Avoid and minimize areas of disturbance; use smallest footprint necessary.	Design and Construction	USACE / Contractor	District
AMM-WAT-8: Clean Equipment	Clean all equipment of soil, seeds, and plant material prior to arriving on site to prevent the introduction of undesirable plant species.	Construction	USACE / Contractor	District
AMM-WAT-9: Site Maintenance	Maintain project sites trash-free and contain food refuse in secure bins; trash will be removed daily. Development of trails will include trash receptacles and signage encouraging the proper disposal of waste.	Construction	USACE / Contractor	District
AMM-WAT-10: In-Stream Sediment Control	Use coffer dams and/or silt curtains to the extent feasible during construction.	Construction	USACE / Contractor	District
AMM-WAT-11: Protect Hazardous Sites	Protect potentially hazardous sites.	Construction	USACE / Contractor	District
AMM-WAT-12: Use of On-Site Material	Use on-site material and natural sedimentation processes to fill in low areas of ponds.	Construction	USACE / Contractor	District
AMM-WAT-13: Sediment Accretion Areas	Manage sediment accretion areas to maintain and create marshes and trap additional material.	Construction	USACE / USFWS	District
AMM-WAT-14: Water Quality Parameters	Water quality parameters in ponds will meet SFBRWQCB standards.	Construction	USACE / Contractor	District and RWQCB
AMM-WAT-15: Water Quality Baseline	South Bay water quality will not decline from baseline levels.	Construction	USACE / Contractor	District and RWQCB
AMM-WAT-16: Dissolved Oxygen	DO levels will meet Basin Plan WQOs.	Construction	USACE / Contractor	District and RWQCB
AMM-WAT-17: Mercury in Sentinel Species	Levels of mercury in sentinel species do not show significant increases over the baseline condition, and not higher in target restoration habitats than in existing habitats.	Monitoring	Project partners	District and RWQCB

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
AMM-WAT-18: Control of Nuisance Algae	Nuisance and invasive species of algae are not released from the study area to the South Bay.	Construction	USACE / Contractor	District
AMM-WAT-19: Minimize In-water Construction	In-water construction activities will be minimized to the extent practical.	Construction	USACE / Contractor	District
AMM-WAT-20: Turbidity Control	The use of BMPs for turbidity control shall be employed during all in-water work conducted in the sloughs or bay, where appropriate.	Construction	USACE / Contractor	District
AMM-WAT-21: Stormwater Runoff Control	No debris, soil, silt, sand, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil, or petroleum products, or other organic or earthen material shall be allowed to enter into or be placed where it may be washed from the construction sites by rainfall or runoff into waters of the State.	Construction	USACE / Contractor	District
AMM-WAT-22: Stormwater Management Plan	A Stormwater Management Plan will be developed to ensure that, during rain events, construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion-control materials (i.e., baffles, fiber rolls, or hay bales; temporary containment berms) and erosion-control measures such as straw application or hydroseeding with native grasses on disturbed slopes; and floating sediment booms and/or curtains to minimize any impacts that may occur due to increased mobilization of sediments.	Construction	USACE / Contractor	District
AMM-WAT-23: Use of Clean Fill	All clean fill material proposed for upland and wetland placement will meet the qualifications set forth in the RWQCB's waste discharge requirements (Tentative Order), approved with respect to chemical and biological suitability for uplands and wetlands by the Dredged Material Management Office.	Construction	USACE / Contractor	District and RWQCB
AMM-WAT-24: Prepare SWPPP	Erosion will be controlled based on the SWPPP to be prepared for the project. Implementing the SWPPP measures will minimize soil erosion and related sedimentation.	Construction	USACE / Contractor	District
AMM-WAT-25: No Treated Wood	Treated wood will not be used in structures that come in contact with water.	Design	USACE	District
AMM-WAT-26: Equipment Staging and Fueling	Vehicle staging, cleaning, maintenance, refueling, and fuel storage will be located 150 feet or more from any stream, water body, or wetland. If an action cannot meet this 150-foot requirement, additional BMPs may be required and will be described for each action.	Construction	USACE / Contractor	District

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
AMM-WAT-27: Hazardous Spill Plan	A Hazardous Spill Plan will be developed prior to construction of each action. The plan will describe what actions will be taken in the event of a spill. The plan will also incorporate preventative measures to be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination and notify appropriate authorities and will mitigate damage as appropriate. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided on the project site.	Construction	USACE / Contractor	District
AMM-WAT-28: Prevent Equipment Leaks	All equipment will be maintained free of petroleum leaks. No equipment will enter live water except for aquatic equipment or amphibious equipment designed specifically for aquatic or amphibious use. All vehicles operated within 150 feet of any water body will be inspected daily for leaks and, if necessary, repaired before leaving the staging area. Inspections will be documented in a record that is available for review on request.	Construction	USACE / Contractor	District
AMM-WAT-29: Stabilize Construction Areas	All disturbed areas will be stabilized within 12 hours of any break in work unless construction will resume work within 7 days. Earthwork will be completed as quickly as possible, and site restoration will occur immediately following use.	Construction	USACE / Contractor	District
AMM-WAT-30: Invasive Plant Prevention	To reduce potential impacts from infestation by species such as nonnative *Spartina*, pepperweed, stinkwort, Algerian sea lavender, and other invasive, nonnative plant species, all equipment (including personal gear) will be cleaned of soil, seeds, and plant material prior to arriving on site to prevent introduction of undesirable plant species. Equipment and personal gear will be subject to inspection. If any invasive, nonnative plant species are found, a qualified botanist will recommend specific measures to control the spread of nonnative plant species. All infestations will be controlled and removed in coordination with the current eradication program for *Spartina* being implemented within the bay without substantially hindering or harming the establishment of native vegetation in the restored wetlands or along levee slopes or surfaces.	Construction	USACE / Contractor	District
M-WAT-1a: Salinity Control	Discharge water from Ponds A12, A13, and A15 after breaching levees will be limited to a maximum salinity of 44 ppt. Breaching will done in a manner that allows for the slow release of pond water during high tide to ensure mixing and dilution. Salinity will be monitored at the time of	Construction	USACE / Contractor	District and RWQCB

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
	breaches of levees around Ponds A12, A13, and A15. Corrective measures, such as slowing the release of the more-saline water, will be implemented as needed to minimize the potential effects on receiving waters.			
M-WAT-1b: Dissolved Oxygen Control	Discharge waters from the ponds will maintain a minimum DO of 5 mg/L. To ensure that DO does not drop below 5 mg/L, discharge water will be monitored from Pond A12 to ensure minimum DO is maintained. If DO levels fall below 5 mg/L measures will be implanted to increase DO levels in Pond A12. Measures might include solar aerators, harvesting dead algae, or installing flow diversion baffles to redirect the flow near the area of discharge.	Construction	USACE / Contractor	District and RWQCB
Aquatic Biological Resources				
AMM-ABR-1: Seasonal Restrictions	Construction activities in or directly adjacent to waters where CCC juvenile steelhead are likely to be present will be performed between June 1 and November 30. To protect juvenile steelhead, levee breaching will not occur between February 1 and May 31.	Construction	USACE / Contractor	District and NMFS
AMM-ABR-2: Biological Monitor	In-water construction activities will be monitored by a qualified fisheries biologist with the authority to stop work if any special-status species are found during construction and to confirm that all measures are implemented as defined in permits, the SWPPP, and the O&M Manual.	Construction	USACE / Contractor and biological monitor	District
AMM-ABR-3: Vibratory Piling	Pilings for the Artesian Slough pedestrian bridge will be driven using vibratory methods; no impact piles will be utilized.	Construction	USACE / Contractor	District
AMM-ABR-4: In Water Sediment Control	Cofferdams and/or silt curtains will be used to the extent feasible during construction and O&M activities, as well as implementation of any adaptive management actions.	Construction	USACE / Contractor	District
AMM-ABR-5: Screen Pumps	All pumps used for the diversion of water during construction (for in-water dewatering) where salmonids may be present will be screened according to NMFS and CDFW criteria for juvenile salmonids.	Construction	USACE / Contractor	District and NMFS / CDFW
AMM-ABR-6: Work at Low Tide	For construction projects that involve structures that extend into the waters where steelhead, Chinook salmon, longfin smelt, and green sturgeon may be present, activities will be performed at low tide or under dewatered conditions, to the extent practicable.	Construction	USACE / Contractor	District
AMM-ABR-7: Notification of Mortality Events	NMFS personnel will be immediately notified of any observed fish mortality events as related to ESA-listed or Candidate species.	Construction	USACE / Contractor and biological monitor	District and NMFS
AMM-ABR-8: Adequate Depth of	Tidally restored ponds will contain channels that are constructed at an adequate depth and width to allow the ingress and egress of fish with tidal circulation and maintain adequate depths and velocities via scour	Construction	USACE / Contractor	District

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
Channels	and deposition to allow continued fish movement in and out of the channels. Inspections will be documented in a record that is available for review on request.			
AMM-ABR-9: Salvage Natural Materials	Any appropriate large wood, native vegetation, and weed-free topsoil displaced by construction will be stockpiled for use during site restoration.	Construction	USACE / Contractor	District
AMM-ABR-10: Prepare SWPPP	A stormwater management plan will be developed to ensure that, during rain events, construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion-control materials (e.g., baffles, fiber rolls, or hay bales; temporary containment berms) and erosion-control measures such as straw application or hydroseeding with native grasses on disturbed slopes, and floating sediment booms and/or curtains to minimize any impacts that may occur due to increased mobilization of sediments.	Construction	USACE / Contractor	District
AMM-ABR-11: Biological Monitoring	A long-term marine biological monitoring program will be developed in consultation with the NMFS and will be used to inform the MAMP.	Monitoring	Project partners	District with NMFS
AMM-ABR-12: Water Structure Materials	Treated wood will not be used in structures that may come in contact with water.	Design	USACE	District
Terrestrial Biological Resources				
AMM-TBR-1: Reporting Requirements	Notify the USFWS, the NMFS, and the CDFW within 1 working day of the finding of any injured or dead listed species or any unanticipated damage to its habitat associated with the proposed project. In addition, the USACE and/or USFWS Refuge staff will provide annual updates and interim progress reports to the USFWS as outlined in the USFWS BO.	Construction	USACE / Contractor and biological monitor	District and USFWS / CDFW
AMM-TBR-2: Seasonal Restrictions	Implement wet-season restrictions on construction for wildlife protection. To the extent feasible (i.e., if water quality protection can be provided), construction will be conducted outside the nesting season for birds (February 1 through August 31) generally, and in compliance with the specific guidelines outlined in the USFWS BO for listed species.	Construction	USACE	District
AMM-TBR-3: Conduct Preconstruction Surveys	If construction cannot take place entirely during the wet (nonbreeding) season (September 1 through January 31), then preconstruction surveys and establishment of buffers around active nests will be conducted to avoid or minimize impacts on wildlife species. Specific buffer requirements for listed species are included in the USFWS BO.	Pre-construction	USACE / Contractor and biological monitor	District
AMM-TBR-4: Stage	Locate staging, access, and parking areas outside of sensitive habitats.	Construction	USACE / Contractor	District

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
Outside Sensitive Habitats				
AMM-TBR-5: Minimize Footprint	Avoid and minimize areas of disturbance to the smallest footprint necessary.	Design and Construction	USACE / Contractor	District
AMM-TBR-6: Install Exclusionary Fencing	Install exclusionary fencing for environmentally sensitive areas. Any fencing near habitat for the SMHM, California Ridgway's rail, or western snowy plover will incorporate raptor perch deterrents to minimize raptor predation on listed species. In addition, all ingress and egress points will be clearly identified in the field using orange construction fence, and work will not be conducted outside the designated work area.	Pre-construction	USACE / Contractor and biological monitor	District and USFWS / CDFW
AMM-TBR-7: Biological Monitor	A USFWS-approved biological monitor will be present during all work activities in or immediately adjacent to habitat that could be occupied by Federally listed species.	Construction	USACE / Contractor and biological monitor	District and USFWS / CDFW
AMM-TBR-8: Site Stabilization and Restoration	All disturbed areas will be stabilized within 12 hours of any break in work unless construction will resume work within 7 days. Earthwork will be completed as quickly as possible, and site restoration to preconstruction (or better) conditions will occur immediately following use.	Construction	USACE / Contractor	District
AMM-TBR-9: Pond Levels for Snowy Plover	Water-level manipulation (e.g., for management) within ponds that contain suitable western snowy plover habitat will not be performed unless surveys are conducted to determine whether they are present during the breeding season (March 1 through September 14). If western snowy plovers are present, any addition of water to the pond will be monitored closely to ensure that no nests are flooded.	Operations	USFWS	USFWS
AMM-TBR-10: Least Tern Breeding Buffer	No activities will be performed within 300 feet of an active least tern nest during the least tern breeding season, which is April 15 to August 15 (or as determined through surveys). *Exception*: Only inspection, maintenance, research, or monitoring activities may be performed during the least tern breeding season in areas within or adjacent to least tern breeding habitat with approval of the USFWS and the CDFW under the supervision of a qualified biologist.	Construction	USACE / Contractor and biological monitor	District and USFWS / CDFW
AMM-TBR-11: Pond Levels for Least Tern	Water-level manipulation (e.g., for management) within ponds known to contain nesting least terns will be monitored closely to ensure that no nests are flooded during the least tern breeding season (April 15 to August 15) unless surveys demonstrate that nesting least terns are absent.	Operations	USFWS	USFWS

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
AMM-TBR-12: Worker Awareness	At the start of construction, the supervising construction personnel will participate in a USFWS-approved worker environmental awareness program. Under this program, construction personnel will be informed about the presence of listed species and habitats associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the FESA. Prior to construction activities, a qualified biologist approved by the USFWS will instruct all construction personnel about (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. The awareness program will apply to construction occurring within or adjacent to tidal marsh or slough habitat and within or adjacent to managed pond habitat. A fact sheet conveying this information will be prepared for distribution to the construction crew and anyone else who enters the project site. A USFWS representative will be appointed as the point of contact for any employee or contractor who encounters a listed species. The representative will be identified during the environmental awareness program. The representative name and telephone number will be provided to the USFWS and the CDFW prior to the initiation of any activities.	Pre-construction	USACE / Contractor and biological monitor	District
AMM-TBR-13: Closure of Trails for Bird Species	To avoid or minimize potential adverse effects from public access and recreation features constructed near tidal marsh, trails adjacent to some nesting areas for sensitive bird species will be closed during the breeding season. Public trails within 300 feet of suitable western snowy plover or least tern nesting habitat will be closed during the breeding season. In addition, if trails are to be open during the breeding season of these species, viewing platforms, kiosks, benches, boat ramps, interpretive displays, restrooms, and other focal areas for public use will be located a minimum of 600 feet from suitable nesting habitat. The locations of trail segments to be closed, and the periods of closure will depend on whether sensitive bird species, such as western snowy plovers or least terns, are nesting in certain areas in a given year and whether nesting areas are located in close proximity to the trails. Decisions about whether to close a particular trail segment will be made early in the breeding season (and possibly later in the season as conditions change) following surveys for nesting birds within a given pond adjacent to a trail.	Operation	USFWS	USFWS

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Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
AMM-TBR-14: Interpretive Signs	Interpretive signs prohibiting access to areas that are closed to the public, and indicating the importance of protection of sensitive biological resources, will be placed in key locations, such as along trails near sensitive habitats, at boat launches, and near the mouths of sloughs that are closed to boating access. Interpretive signs at boat launches will describe areas that are closed to boating access and will describe measures to be implemented to avoid impacts on harbor seals, Ridgway's rails, and other sensitive wildlife.	Operation	Santa Clara County (at Alviso Marina) and USFWS	Santa Clara County and USFWS
AMM-TBR-15: No Dogs in Refuge	Dogs are not allowed on Refuge land in the Alviso Pond Complex. If the City of San José allows dogs in the area around Pond A18, dogs will be restricted to designated trails (must be leashed) and designated hunting areas during the waterfowl season. Dogs not actively used for hunting in the area around Pond A18 must be on a leash at all times.	Operation	USFWS and City of San Jose	USFWS and City of San Jose
AMM-TBR-16: Cleaning of Equipment	To reduce potential impacts from infestation by nonnative *Spartina*, pepperweed, and other invasive, nonnative plant species, all equipment (including personal gear) will be cleaned of soil, seeds, and plant material prior to arriving on site to prevent introduction of undesirable plant species. Equipment and personal gear will be subject to inspection. All infestations occurring within the wetlands will be controlled and removed to the extent feasible without substantially hindering or harming the establishment of native vegetation in the restored wetlands.	Construction	USACE / Contractor	District
AMM-TBR-17: Hazardous Materials Management/Fuel Spill Containment Plan	A hazardous materials management and fuel spill containment plan will be developed prior to construction and given to all contractors and biological monitors working on the project. The plan will describe what actions will be taken in the event of a spill. The plan will also incorporate preventative measures to be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination, notify appropriate authorities, and mitigate damage as appropriate. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided on the project site. Details of the plan elements can be found in the USFWS BO	Construction	USACE / Contractor	District
AMM-TBR-18: Construction Site Maintenance	Project sites will be maintained trash-free, and food refuse will be contained in secure bins and removed daily.	Construction	USACE / Contractor	District
AMM-TBR-19:	Prior to construction, all high-quality habitat for listed species will be mapped and provided to the USFWS. Vehicles driving on levees	Construction	USACE / Contractor	District

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Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
Speed Limit	adjacent to such habitat for construction or monitoring activities will then travel a speeds no greater than 10 mph to minimize noise and dust disturbance.		and biological monitor	
AMM-TBR-20: Vehicle Staging and Fueling	Vehicle staging, cleaning, maintenance, refueling, and fuel storage will be located 150 feet or more from any stream, body of water, or wetland.	Construction	USACE / Contractor	District
AMM-TBR-21: Vehicle and Equipment Maintenance	All equipment will be maintained free of petroleum leaks. No equipment will enter live water except for aquatic equipment or amphibious equipment designed specifically for aquatic or amphibious use. All vehicles operated within 150 feet of any body of water will be inspected daily for leaks and, if necessary, repaired before leaving the staging area. Inspections will be documented in a record that is available for review on request.	Construction	USACE / Contractor	District
AMM-TBR-22: Stormwater Management Plan	A stormwater management plan will be developed to ensure that, during rain events, construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion-control materials (e.g., baffles, fiber rolls, or hay bales; temporary containment berms) and erosion-control measures such as straw application or hydroseeding with native grasses on disturbed slopes; and floating sediment booms and/or curtains to minimize any impacts that may occur due to increased mobilization of sediments.	Construction	USACE / Contractor	District
AMM-TBR-23: Use of Clean Fill	All clean fill material proposed for upland and wetland placement will meet the qualifications set forth in the San Francisco Bay Regional Water Quality Control Board's waste discharge requirements (Tentative Order), approved with respect to chemical and biological suitability for uplands and wetlands by the USACE Dredged Material Management Office. If the abovementioned thresholds are not attained and the material is approved for use by the San Francisco Bay Regional Water Quality Control Board, consultation will be reinitiated to analyze the potential effects of the contaminated material to listed species.	Construction	USACE / Contractor	District and RWQCB
AMM-TBR-24: Invasive Plant Species Monitoring	The restored tidal marsh wetlands will be monitored for possible infestation by nonnative cordgrass, perennial pepperweed, and other invasive, nonnative plant species that could result in a substantial reduction in the ecological value of the tidal restoration and ecotone construction. It is expected that some nonnatives that are not particularly invasive will colonize the ecotones, but, if any particularly invasive, nonnative plant species are found, a qualified botanist will recommend specific measures to control the spread of nonnative plant species. All infestations of nonnative cordgrass within the restored tidal marsh wetlands will be controlled and removed in coordination with the San	Monitoring	USACE / Contractor	District

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Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
	Francisco Estuary Invasive Spartina Project without substantially hindering prepared or harming the establishment of native vegetation in the restored wetlands. If perennial pepperweed control is necessary, spraying with glyphosate or imazapyr formulated for aquatic use may be necessary, as described by Hogle et al. (2007) for the San Pablo Bay National Wildlife Refuge. Otherwise, preferred vegetation management will involve non-mechanized methods of removal including hand-pulling, saline spray, pond flooding (during nonbreeding seasons), and substrate-based controls. Aside from glyphosate and imazapyr for pepperweed control, the use of any herbicides will be subject to USFWS and NMFS approval. More details regarding spraying for perennial pepperweed is provided in the USFWS BO.			
AMM-TBR-25: Nighttime Work Avoidance	Nighttime work near tidal marsh habitat will be avoided to the extent feasible. If nighttime work cannot be avoided, lighting will be directed to the work area and away from habitat for the SMHM and California Ridgway's rail.	Construction	USACE / Contractor	District
M-TBR-2a: Construction Avoidance Measures for Salt Marsh Harvest Mouse	To minimize or avoid the loss of individual SMHM from any excavation, fill, or construction activities in suitable habitat within tidal marsh areas the following measures will be implemented: • Vegetation removal will be limited to the minimum amount necessary to permit the activity to occur. • Sufficient pickleweed habitat, as determined by a USFWS-approved biologist, will remain adjacent to the activity area to provide refugia for displaced SMHM. • Silt fences will be erected adjacent to construction areas to define and isolate potential SMHM habitat. • Vegetation removal where SMHM may occur, including salt and brackish marsh vegetation, both tidal and non-tidal, consisting primarily of pickleweed or with a strong admixture of pickleweed and other halophytes, will start at the edge farthest from the salt marsh and work its way toward the salt marsh. This method of removal provides cover for SMHM (and the salt marsh wandering shrew) and allows individuals to move toward the salt marsh as vegetation is being removed. On Federal lands (the Refuge), SMHM may be moved into adjacent undisturbed vegetation or else captured and relocated, based on the provisions of the BO and coordination with the USFWS Ecological Services office. In areas not under Federal ownership, the State of California Fish and Game Code would apply and must be complied with. Under this code, SMHM is a Fully Protected species and cannot be captured except under permit for	Pre-construction and construction	USACE / Contractor and biological monitor	District and USFWS / CDFW

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Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
	scientific purposes. This means that capture and relocation of this species would not be allowed for this project in these areas. • In areas where SMHM habitat extends in a highly linear fashion with completely unsuitable habitat (bare ground or water) on both sides, such as portions of levee faces and along the levee located southeast of Pond A18, removal of vegetation would not necessarily provide a good escape route for any SMHM that may be present. Individuals discovered during vegetation clearance would therefore be captured and relocated in consultation with the USFWS. However, capture and relocation would not be available as an avoidance measure on non-Federal lands. • On non-Federal lands impact areas would be assessed to determine which vegetation has the potential to harbor SMHM. Next, this vegetation would be removed manually on a gradual and progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. This would be done over a period of several days to 1 week prior to construction to allow individual SMHM to relocate to remaining vegetation as they seek shelter. A biologist would monitor vegetation removal and would make specific recommendations with respect to the rate of vegetation removal, whether vegetation needs to be retained temporarily in certain areas to provide temporary shelter and facilitate dispersal of mice into habitat outside the impact area, and whether temporary berms may need to be constructed over borrow ditches to allow mice to disperse across channels.			
MM-TBR-2b: Construction Avoidance Measures for western snowy plovers	To minimize or avoid the loss of individual western snowy plovers during FRM levee construction: • No activities will be performed within at least 600 feet of an active western snowy plover nest during the western snowy plover breeding season, which is March 1 through September 14 (or as determined through surveys). • Vehicles driving on levees and pedestrians walking on boardwalks or levees will remain at least 300 feet away from western snowy plover nests and broods. • Personnel who must stop at a specific site for brief inspections, maintenance, or monitoring activities will remain 600 feet away from western snowy plover nests and broods. *Exception*: Only inspection, maintenance, research, or monitoring activities may be performed during the western snowy plover breeding season in areas within or adjacent to western snowy plover breeding habitat with approval of	Pre-construction and construction	USACE / Contractor and biological monitor	District and USFWS / CDFW

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Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
	the USFWS and the CDFW under the supervision of a qualified biologist. • If western snowy plover chicks are present and are foraging along any levee that will be accessed by vehicles (e.g., for construction, inspection, or access), vehicle use will be under the supervision of a qualified biologist (to ensure that no chicks are present within the path of the vehicle). • Breaching of ponds that contain suitable snowy plover habitat will not be performed during the breeding season (March 1 through September 14) unless surveys have documented that no active nests or unfledged chicks are presentwithin the ponds to be flooded by breaching.			
MM-TBR-2c: Additional Measures for western snowy plover	Breeding habitat for snowy plover will be enhanced on an island in Pond A16. Islands were constructed in Pond A16 in 2012 and 2013 as part of Phase I activities of the SBSP Restoration Project, for the purpose of providing nesting, roosting, and foraging habitat for a variety of pond-associated bird species, including snowy plovers. Snowy plovers nested on one of these islands in 2013. However, the dark substrate of the islands, and their relatively homogeneous surfaces, could make snowy plovers on the islands relatively conspicuous to predators. The Phase I Study Project will provide small gravel (or other appropriate substrate) that will be distributed in patches on one of the islands in A16 (with the island to be selected by the Refuge), and the Project will fund the maintenance of this gravel. Pea gravel has been intentionally provided in some areas as a substrate for use by nesting snowy plovers. Gravel may make it more difficult for predators such as California gulls and northern harriers to detect plovers due to camouflage (e.g., plovers may be difficult to distinguish within the gravel from a distance) and increased topographic relief associated with the gravel and footprints left by people distributing the gravel. As a result, predation rates on both eggs and chicks are likely to be lower in areas with such gravel, and more plovers may be attracted to nest in areas with gravel. Providing gravel on an island in Pond A16 is expected to increase plover nesting abundance, and possibly nesting success, thus compensating for the adverse effects of other Project activities on nesting plovers. Predator management is currently performed on Refuge lands, but as partial compensation for adverse effects from FRM levee construction on snowy plovers, the intensity of this management will be increased in Pond A16 and the NCM during the snowy plover breeding season. This	Construction and Operations	Project partners	District and USFWS

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Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
	enhanced predator management will include more frequent monitoring for predators nesting (e.g., gulls and corvids), roosting, or foraging in these areas islands; more frequent trapping of mammalian predators in the NCM and along Artesian Slough; and ongoing identification and implementation of deterrence or removal measures for those predators. This measure will consist of funding a predator management technician for an additional 10 hours/week during the period March 1 through September 14 (approximately 28 weeks).			
M-TBR-2d Pre-construction Surveys and Passive Relocation of Burrowing Owls	Prior to construction, areas that support known or suspected burrowing owl burrows will be surveyed using the protocol described in the California Burrowing Owl Consortium's Burrowing Owl Survey and Mitigation Guidelines (1993). If active burrows are identified an area buffer will be established until the young have fledged.	Pre-construction	USACE / Contractor and biological monitor	District
MM-TBR-2e Construction Avoidance Measures for California Ridgway's Rails	To minimize or avoid the loss of individual Ridgway's rails, activities within or adjacent to Ridgway's rail habitat will not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge), when the marsh plain is inundated, because protective cover for Ridgway's rails is limited and activities could prevent them from reaching available cover. To minimize or avoid the loss of individual Ridgway's rails, activities within or adjacent to tidal marsh areas will be avoided during the Ridgway's rail breeding season from February 1 through August 31 each year unless surveys are conducted to determine Ridgway's rail locations and Ridgway's rail territories can be avoided, or the marsh is determined by a qualified biologist to be unsuitable Ridgway's rail breeding habitat. If breeding Ridgway's rails are determined to be present, activities will not occur within 700 feet of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the Ridgway's rail calling center and any activity area is greater than 200 feet, then construction activity may proceed at that location within the breeding season. *Exception*: Only inspection, maintenance, research, or monitoring activities may be performed during the Ridgway's rail breeding season in areas within or adjacent to Ridgway's rail breeding habitat with approval of the USFWS and the CDFW under the supervision of a qualified biologist.	Construction	USACE / Contractor and biological monitor	District
MM-TBR-2f Construction Avoidance Measures for	To avoid potential impacts on nesting migratory birds, project construction in areas that provide habitat for migratory birds will be performed outside of the bird nesting season (February 1 to September 15), where feasible. If construction must occur during this period, a	Pre-construction	USACE / Contractor and biological monitor	District and USFWS / CDFW

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Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
Nesting Birds	qualified biologist will conduct preconstruction surveys within suitable habitat areas potentially affected by the Proposed Project. If nesting migratory birds are found during preconstruction surveys, the USACE or its construction contractor will consult with the CDFW and/or the USFWS regarding appropriate actions to comply with the Migratory Bird Treaty Act and the Fish and Game Code. Unless the CDFW and/or the USFWS specify otherwise, established protection zones will remain until young birds have fledged.			
M-TBR-2g Conduct Focused Protocol-level Surveys for Congdon's tarplant	Preconstruction protocol-level focused surveys shall be conducted in suitable habitat for Congdon's tarplant. These surveys shall be conducted according to the CNPS (2001), CDFG (2009), and USFWS (2003) special-status plant survey protocols. If no plants are discovered then no further mitigation is necessary. If Congdon's tarplant is found in the study area, consultation shall be initiated with USFWS or CDFW to finalize a mitigation plan, as appropriate. If required, the mitigation plan shall minimally include: • Preparation by a qualified botanist with experience in native plant restoration, mitigation, and management; • Description of avoidance measures, such as construction setbacks, installation of exclusionary fencing prior to and during construction, and pre-construction training of construction personnel on the identification and location of these plants. If sensitive plant species can be avoided, then no further mitigation is required; • If plants cannot be avoided, compensatory mitigation for unavoidable impacts, which will include preservation or creation; • Creation of a new population using propagules collected from the impact site or protection of an existing population at a ratio of 2 acres preserved for each acre removed or as determined in agency consultation; including clearly defined performance criteria focusing on plant establishment and nonnative species control measures and locations and procedures for restoration. Plants shall be salvaged only where feasible as determined by a qualified botanist. Plant salvage will not be conducted in lieu of population creation using local propagules or population preservation. • Specification of a minimum 5-year post-construction maintenance and monitoring plan for any plant salvage or habitat creation to ensure that the plant establishment performance criteria are met. The monitoring program shall include potential remedial action measures. Annual reports and a final report shall be prepared and submitted to USFWS or CDFW, as appropriate, to document the success of the	Pre-construction	USACE	District

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	mitigation; • Secure a source of funding for mitigation and monitoring operations. Alternatively, plant credits may be purchased at a mitigation bank at a ratio of 2:1at a local site.			
Hazards and Hazardous Materials				
AMM-HAZ-1: Avoid Hazardous Sites	All sites listed in Table 4.8-1 *Hazardous Materials Sites within or adjacent to Potential Disturbance Areas* that are designated as "having HTRW concerns that are not likely to or with the potential to affect future construction" should be avoided for inclusion in this Recommended Plan (Proposed Project). Moreover, construction will be avoided in all areas where the presence or potential presence of HTRW has been documented previously. Further coordination with the City of San José, the operator of the Wastewater Facility, will be conducted in order to accurately locate and avoid all areas with HTRW concerns prior to construction.	Design	USACE with City of San Jose	District
AMM-HAZ-2: Compliance with Federal, State, and Local Regulations	Compliance with applicable regulations would reduce the potential for accidental release of hazardous materials during construction. The contractor would also be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention Control and Countermeasure Plan (SPCCP) that details the contractors plan to prevent discharge from the construction site into drainage systems, lakes, or rivers. This plan would include Best Management Practices (BMPs) and a spill cleanup plan that are planned for implementation at each construction site	Construction	USACE / Contractor	District
AMM-HAZ-3: Prepare Health and Safety Plan	A worker health and safety plan would be prepared before the start of construction activities that identifies, at a minimum, all contaminants that could be encountered during construction activities; all appropriate worker, public health, and environmental protection equipment and procedures to be used during project activities; emergency response procedures; the most direct route to the nearest hospitals; and a Site Safety Officer. The plan would describe actions to be taken should hazardous materials be encountered on site, including protocols for handling hazardous materials and preventing their spread, and emergency procedures to be taken in the event of a spill.	Construction	USACE / Contractor	District
AMM-HAZ-4: Records Review Prior to Construction	If significant time has elapsed between approval of this document and construction, a second records review should be completed to reduce the risk of encountering a site during construction.	Pre-construction	USACE	District

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M-HAZ-1: Discovery of Undocumented Hazardous Materials	It is unlikely that any HTRW will be encountered in areas that have no previous documentation of the presence or potential presence of HTRW. However, should HTRW be encountered unexpectedly during construction activities such as excavation and dewatering, the contractor must notify the appropriate Federal, state, and local agencies, and the site would be remediated in compliance with applicable Federal, state, and local laws. If an undocumented underground storage tank is encountered, a licensed contractor will be retained to remove the UST and any associated contaminated material. In the event that contamination is encountered, the contractor will notify appropriate agencies and remediate the site consistent with state and local regulations.	Construction	USACE / Contractor	District
M-HAZ-3: Construction Near Hazardous Sites	All sites listed in Table 4.8-2 *Hazardous Materials Consideration for Flood Risk Management Alignment* that are designated as "having HTRW concerns that are not likely to or with the potential to affect future construction" should be avoided for inclusion in this Proposed Project. Construction will be avoided in all areas where the presence or potential presence of HTRW has been documented previously. If construction activities must occur in close proximity to sites where the presence or potential presence of HTRW has been documented previously, the USACE would reevaluate the site to determine if a Phase II Environmental Site Assessment is necessary. If it is determined that a Phase II Environmental Site Assessment must be completed, the USACE would conduct a Phase II Environmental Site Assessment for the alignment of the FRM levee, staging areas, and other construction areas as appropriate to confirm the presence or absence of HTRW. The results will determine the existence of actionable concentrations of released hazardous materials. This would further reduce the risk of exposure to workers and the public during construction and assist in the remediation planning. If necessary, the assessment would include an analysis of soil or groundwater samples if an analysis had not yet been completed during previous investigations before construction activities begin. Prior to commencement of the Phase II Environmental Site Assessment, the USACE would develop a contingency plan to address the hazardous materials and work safety requirements for the proper handling, storage, treatment, and disposal of any contaminants present at an actionable level consistent with Federal, State, and local laws. Based on the results of the Phase II Environmental Site Assessment,	Design and construction	USACE	District

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	additional measures, such as remediation, disposal, containment, and special safety precautions for workers, may be required consistent with Federal and State regulations. If contamination is present, safety measures would be implemented to protect workers, and soil would be further characterized to determine the nature and extent of contamination, guide disposal options, and potentially limit placement and reuse of soil on site consistent with mitigation measure M-HAZ-01.			
Transportation				
AMM-TRN-1: Work Hours	Truck delivery and regular construction work hours would be outside the AM and PM peak traffic hours, so project-related trips would occur predominantly outside the peak traffic hours and would minimize impacts on the area transportation system.	Construction	USACE / Contractor	District
AMM-TRN-2: Coordination with Railroad	The USACE would coordinate the construction and use of temporary railroad crossings with rail owners and transit operators to ensure that project activities are conducted during off-peak hours with minimal effects on railroad operations.	Construction	USACE	District and railroad
AMM-TRN-3: Traffic Control Plan	A traffic-control plan would be prepared for local agency review consistent with local agency requirements.	Construction	USACE / Contractor	District
Air Quality / Greenhouse Gases				
AMM-AIR-1: Dust-Control Measures	The contractor will implement standard dust-control methods recommended by the BAAQMD including: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure CCR Title	Construction	USACE / Contractor	District

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	13, Section 2485). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • A publicly visible sign shall be posted with a telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.			
AMM-AIR-2: Limit Idling Time	The contractor shall limit the idling time of dieselpowered construction equipment to 2 minutes.	Construction	USACE / Contractor	District
AMM-AIR-3: Prepared SWPPP	The contractor shall prepare a SWPPP. The compliance with SWPPP water quality standards will also minimize the generation of dust.	Construction	USACE / Contractor	District
AMM-AIR-4: Greenhouse Gas BMPs	The contractor will utilize alternatively fueled construction equipment for at least 15-percent of the fleet, use local building materials for at least 10-percent of the total, and recycle or reuse at least 50-percent of construction waste or demolition materials.	Construction	USACE / Contractor	District
AMM-AIR-5: Cleaner Construction Equipment	Ensure that construction vehicles use newer and cleaner construction equipment (e.g., Tier 4), or diesel particulate filters are installed on older construction equipment.	Construction	USACE / Contractor	District
AMM-AIR-6: Use Electrical Power where Possible	Use electricity from the grid, rather than portable diesel-powered generators, where possible.	Construction	USACE / Contractor	District
M-AIR-1a	Prior to the start of construction, the contractor shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project-wide fleet average of 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.	Construction	USACE / Contractor	District
M-AIR-1b	The contractor will require that all construction equipment, diesel	Construction	USACE / Contractor	District

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	trucks,and generators be equipped with BACT for emission reductions of NOx and PM and that all equipment meets the ARB's most recent certification standard for off-road heavy-duty diesel engines.			
Recreation				
AMM-REC-1: Incorporate Existing Trails	Incorporation of existing trail segments into a levee, either by including a crossing of the levee or by providing Americans with Disabilities Act-compliant access to pedestrians along portions of the levee alignment.	Design	USACE	District
AMM-REC-2: Landscape Displays	Interpretive displays will be incorporated into the landscape (i.e., former viewshed blocked by the levee) to explain the restoration project efforts and the impacts and development of the project in phases.	Design	Project partners	District
AMM-REC-3: Bay Trail Connection	An enhancement to connect the Bay Trail spine between Milpitas and Alviso (just north of SR 237) has been incorporated into the design at 100% non-Federal cost to meet a goal of the Bay Trail Board. This segment of trail could be used by commuters and provide regional trail connectivity. Paving this segment for non-motorized multiple uses would encourage bicycle commuters to use the Bay Trail instead of the new unpaved levee maintenance trail.	Design	Project partners and City of San Jose	District and City of San Jose
Aesthetics				
AMM-AES-1: Stabilize Disturbed Areas	Temporarily disturbed areas would be stabilized; bayward sides of the levee would be seeded if native vegetation did not establish on its own	Construction	USACE / Contractor	District
Noise				
AMM-NOI-1: Work Hours	Truck delivery and regular construction work hours will be restricted from 9:00 AM to 3:00 PM Construction also has seasonal restrictions as discussed in Section 4.6 *Aquatic Biological Resources* and Section 4.7 *Terrestrial Biological Resources*.	Construction	USACE / Contractor	District
AMM-NOI-2: Wildlife Buffers	Construction must maintain minimum buffers from sensitive wildlife species as discussed in Section 4.7 *Terrestrial Biological Resources*.	Construction	USACE / Contractor and biological monitor	District
AMM-NOI-3: Noise Best Management Practices	The contractor will implement practices that minimize disturbances to residential neighborhoods surrounding work sites, including: • Internal combustion engines will be equipped with adequate mufflers; • Excessive idling of vehicles will be prohibited; • All construction equipment will be equipped with manufacture's standard noise control devices; • The arrival and departure of trucks hauling material will be limited to the hours of construction; and,	Construction	USACE / Contractor	District

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	• The use of jake brakes is prohibited in residential areas.			
M-NOI-1	The contractor will obtain a conditional-use permit from the City of San José to allow exceedances of the noise standard during construction activities. The contractor will comply with all provisions of the conditional-use permit, which are expected to include time-of-day restrictions, equipment setback requirements, notification requirements, equipment maintenance, and equipment muffler requirements. The contractor will monitor construction-related noise levels for a period of at least one hour daily during active construction for activity that is within 100 feet of the Alviso Marina, the EEC, or any residences. If noise levels exceed the levels permitted through the conditional-use permit or City of San José standards, the contractor will reduce the numbers of noise-generating equipment in use at any one time or install temporary noise barriers. After necessary noise control measures are implemented, the contractor will continue to monitor noise levels for a period of at least one hour daily during active construction to ensure that noise levels remain within the allowable standard(s).	Construction	USACE / Contractor	District and City of San Jose
Public Health and Aviation Safety				
AMM-HEA-1: Coordinate with Vector Control District	The City of San José and the Refuge will continue to coordinate with the Vector Control District and the USFWS for ongoing management of vector issues. This AMM would avoid and minimize effects associated with mosquito populations in the Shoreline Phase I Study Area.	Operation	USFWS, City of San Jose	District, USFWS, City of San Jose, and Vector Control District
Cultural Resources				
AMM-CUL-1: Avoid Cultural Resources	The levee alignments and related construction activities will avoid known cultural resources, except the Alviso Salt Pond Historic Landscape, within the study area.	Design	USACE	District
AMM-CUL-2: Discovery of Remains	Work in areas where any burial site is found will be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner will be immediately notified. No further excavation or disturbance within 30 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, California Native American Heritage Commission, and/or the County Coordinator of Indian Affairs.	Construction	USACE / Contractor	District
M-CUL-1	In 2012, the USFWS consulted with the California State Historic Preservation Office (SHPO) regarding the restoration program for the entire Alviso Unit under the SBSP Restoration Project, and consequently satisfied the requirements of Section 106 of the National Historic	Design	USACE	USACE and SHPO

Mitigation Monitoring and Reporting Program Summary Table

Measure #	Measure	Timeframe for Implementation	Responsibility for Implementation	Responsibility for Monittoring/Oversight
	Preservation Act (NHPA), pursuant to 36 C.F.R. § 800, by executing a Memorandum of Agreement (MOA) that included a Historic Property Treatment Plan (HPTP). Information from the USFWS Section 106 compliance has direct impact on the current Shoreline Study effort to comply with Section 106. Through ongoing consultation with SHPO, the Shoreline Study may have to develop a HPTP for Section 106 purposes to resolve any unforeseen adverse effects to the Alviso Salt Pond Historic Landscape and the Alviso Historic District prior to initiation of construction.			
Public Utilities and Service Systems				
AMM-UTL-1: Reuse Materials	Reuse earth materials (existing levees, etc.) to reduce the amount of import material, stockpile and landfill material.	Construction	USACE / Contractor	District
AMM-UTL-2: Flood Warning Signs	Install public warning signs and sirens to improve public awareness and response to inundation emergencies (floods and tsunamis).	Operations	USACE and District with the City of San Jose and Santa Clara County	District
AMM-UTL-3: Relocate Utilities	Relocate utilities in conflict with levee features either before or in conjunction with construction of levee features to minimize impacts.	Construction	USACE	District