

**U.S. Department of the Interior
Fish and Wildlife Service**

**San Diego National Wildlife Refuge Complex
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FINDING OF NO SIGNIFICANT IMPACT (FONSI)

for the
**South San Diego Bay
Coastal Wetland Restoration and Enhancement Project
San Diego County, California**

The U.S. Fish and Wildlife Service (Service) in cooperation with the California Coastal Conservancy (Conservancy) has prepared a joint Environmental Assessment (EA)/Initial Study (*USFWS and California Coastal Conservancy 2009*) to evaluate the effects of implementing coastal wetland and upland restoration and enhancement on three sites within south San Diego Bay, San Diego County, California. The document was prepared in accordance with both the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), with the Service acting as the Lead Agency under NEPA and the Conservancy acting as Lead Agency under CEQA. The National Oceanic and Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS) is a Cooperating Agency under NEPA and the Port of San Diego (Port) is a Responsible Agency under CEQA.

The joint EA/Initial Study (incorporated by reference herein) describes the South San Diego Bay Coastal Wetland Restoration and Enhancement Project (South Bay Restoration Project), a multiple agency proposal to restore and enhance coastal wetland and upland habitat in south San Diego Bay. The EA/Initial Study evaluated the potential effects of implementing the proposed action and various alternatives to the proposed action. A vicinity map (Figure 1) and location map (Figure 2), which are attached, depict the location of the various units proposed for restoration and enhancement.

This multiple partner restoration project involves restoration and enhancement of coastal habitats in three locations within San Diego Bay: 1) 233 acres of salt ponds within the South San Diego Bay Unit of the San Diego Bay NWR; 2) the 50-acre Chula Vista Wildlife Reserve (CVWR), managed by the Port and located just west of the South Bay Power Plant; and 3) a 25-acre site of disturbed coastal upland and wetland habitat referred to as Emory Cove, which is also managed by the Port and located along the western edge of the Bay to the north of the Biological Study Area.

The project is intended to restore and enhance a range of high quality coastal habitats representative of the historic coastal habitats that occurred in south San Diego Bay prior to the late 1800s. These include shallow subtidal, intertidal, wetland/upland transition, and upland

scrub habitats. Opportunities for restoring and enhancing these types of coastal habitats, particularly tidally influenced wetland habitats, in Southern California are limited. Therefore, where opportunities exist, restoration of the physical and biological processes that are characteristic of healthy wetland ecosystems is a high priority.

Decision

The Service proposes to: 1) provide the Conservancy with one million dollars to fund administrative, engineering, and site work activities for the project through a grant under the Wildlife and Sport Fish Restoration (WSFR) Program's National Coastal Wetland Conservation Grant Program; 2) provide additional funds for restoration on the San Diego Bay NWR through the Coastal Program; and 3) implement restoration actions within the San Diego Bay NWR to restore tidal influence to 233 acres of existing solar salt ponds and construct a new tide gate in Pond 12. Funds from other agencies, including the Conservancy, Port, NOAA/NMFS through the American Recovery and Reinvestment Act of 2009, and the U.S. Environmental Protection Agency (EPA), will also be provided to ensure full implementation of the South Bay Restoration Project.

Following comprehensive review and analysis, the Service selected the proposed action for implementation. This includes restoring Ponds 10, 10A, and 11 to optimize conditions for cordgrass-dominated salt marsh habitat with an accompanying range of subtidal and other intertidal habitats; restoring the western and eastern basins of the CVWR to intertidal habitat, and restoring and enhancing a range of habitats at Emory Cove. This alternative was selected because it best addresses local and regional objectives for improving habitat in south San Diego Bay for fish and wildlife, including migratory birds.

Alternatives Considered

The overall purpose of the proposed project is to restore and enhance approximately 300 acres within San Diego Bay to support a range of high quality coastal habitats representative of the historic (i.e. late 1800s) conditions at the south end of the bay. There is a need to restore and enhance coastal habitat within South San Diego Bay to achieve this purpose and the goals and objectives set forth in multiple other local, state, and federal agency conservation plans, all of which support the long-term conservation of native coastal habitats and species. Please refer to Chapter 1 of the Final EA/Initial Study, which provides a more detailed discussion of the proposed action's purpose and need.

As detailed in the EA/Initial Study, several action alternatives, as well as the no action alternative, were considered for each of the three restoration areas, and are summarized below:

WESTERN SALT PONDS

Alternative 1A - Restore Intertidal Habitat using Material Imported from the CVWR

Option 1 - Retain Existing Culverts between Ponds 10 and 10A (**Proposed Action**)

Option 2 - Replace Existing Culverts between Ponds 10 and 10A with a New Weir

Alternative 1B - Restore Intertidal Habitat w/out Importing Material from the CVWR - No Import Alternative

Alternative 1C – No Action (Maintain Existing Solar Salt Ponds)

Summary of the Alternatives Evaluated for the Western Salt Ponds. Two restoration proposals were considered for the western salt ponds. One alternative proposes to optimize conditions in the ponds to support cordgrass-dominated salt marsh habitat, while the other alternative, which would not include the addition of 50,000 cubic yards of material from the CVWR, would support a mix of cordgrass-dominated salt marsh and intertidal mudflat habitat. Both alternatives would provide a network of subtidal channels in Ponds 10 and 11. Two options for restoring Pond 10A were also evaluated; one requires extensive culvert improvements under the existing Bayshore Bikeway and the other would rely on the existing culvert configuration.

Additional alternatives analysis was previously conducted for the western salt ponds component of the project as part of the San Diego Bay NWR Comprehensive Conservation Plan Environment Impact Statement (*USFWS 2006*), which was incorporated by reference into the Final EA/Initial Study.

CHULA VISTA WILDLIFE RESERVE

Alternative 2A - Restore Intertidal Habitat, Transport Excavated Material to Pond 11

Option 1 - Pump Excavated Material to Pond 11 (**Proposed Action**)

Option 2 - Truck Excavated Material to Pond 11

Alternative 2B - Restore Intertidal Habitat, Dispose of Excavated Material Onsite and/or at a Landfill (No Import Alternative)

Alternative 2C – No Action (Maintain Current Conditions at the CVWR)

Summary of the Alternatives Evaluated for the CVWR. The alternatives for the CVWR examined various options for disposing of the material excavated from the site. The analysis considered two options for transporting the material to Pond 11, while another option assumed the material would be transported to a landfill. As stated in the Final EA/Initial Study, material from the CVWR will only be transported to Pond 11 if the results of required sediment sampling indicate that the sediment chemistry and physical characteristics are not a concern for the planned restoration.

EMORY COVE

Alternative 3A - Accept Federal Funds to Assist in Restoration/Enhancement Proposals at this Site (**Proposed Action**)

Alternative 3B - Do Not Accept Federal Funds (**No Action**)

Summary of the Alternatives Evaluated for Emory Cove. Only the proposed action and the no action alternative were considered for Emory Cove because that portion of the project can go forward with or without federal funding.

Proposed Action

The Service's proposed action includes restoring intertidal and subtidal habitat within the western salt ponds using material from the CVWR (if it is deemed suitable for restoration) and retaining the existing culvert configuration under the Bayshore Bikeway, as described in Alternative 1A(Option 1); transporting the excavated material from the CVWR to Pond 11 by pumping the slurry across the Bay via a temporary pipeline, as described in Alternative 2A(Option 1); and providing funding to implement the Emory Cove proposal, as described in Alternative 3A. The proposed action was selected over the other alternatives because the implementation of these components would best meet the needs of the environment and the public, as well as the goals and objectives of federal, state, and local agencies for the conservation of coastal habitats and species. It should be noted that based on the analysis in the Final EA/Initial Study transporting suitable material from the CVWR to Pond 11 via trucks would not result in any significant unmitigated impacts to the environment. Therefore, if transporting the material via slurry becomes infeasible for economic or project scheduling reasons, trucking the material would be an acceptable alternative for transporting the material to Pond 11.

Environmental Consequences of Implementing the Proposed Action

A summary of the potentially adverse effects of implementing the proposed action are provided below. To ensure that no significant adverse effects to the environment would result from the proposed action, adequate measures have been incorporated into the project to avoid and minimize all potential adverse effects.

Topography/Visual Quality

The existing elevations within Ponds 10 and 11 would be altered to achieve appropriate conditions for supporting the desired habitat types. These elevations changes would not be discernable from outside the ponds. The alteration of pond elevations, as well as the changes proposed in the outer levees of the ponds, would represent relatively minor topographic changes as viewed from the surrounding area. Therefore, the effects to the existing landform would be inconsequential.

The appearance of the western ponds following restoration would be changed from that of water-filled ponds to intertidal mudflats or cordgrass-dominated salt marsh covered by water only during periods of tidal inundation. This change in the appearance of the ponds could be viewed as adverse by some observers, while others might consider returning the area to a more historical landscape to be a beneficial visual effect of restoration. In either case, the proposed change would not significantly change the open nature of the area and would not create a significant adverse visual effect.

Significant adverse effects to visual quality from the future proposal to construct a chain linked fence along the western edge of the ponds would be avoided and minimized by installing the fence below the grade of the road wherever possible and planting screening vegetation adjacent to the fence where it could be visible from the adjacent highway.

Finally, only black vinyl chain link fencing would be used in order to further reduce the visibility of the fence when viewed from the roadway.

Proposed excavation within the CVWR would lower the existing elevations within the west and east basins, however, from a topographic and visual perspective these changes would be minor and would not be visible from outside the boundaries of the CVWR. No substantive grading is proposed at the Emory Cove site. Therefore, impacts related to topography and visual quality associated with would be less than significant.

Geology and Soils

The potential for deep seated failure of submerged slopes within the salt ponds would be avoided by constructing the slopes of the levee breaches at a slope gradient of 4:1 or flatter. Prior to completion of final engineering plans for the new tide gate in Pond 12 additional geotechnical analysis will be conducted to ensure that current soil conditions within and below the levee are adequate to support the new construction and that adequate design features are incorporated into the final design to ensure the long term stability of the tide gate. No other structures are proposed for the western salt ponds and no structures are proposed at the CVWR under this alternative, therefore, no impacts related to subsidence, ground failure, or erosion affecting onsite facilities or adjacent facilities would result from the implementation of the proposed action.

Hydrology

The activities proposed at the CVWR and Emory Cove as part of the proposed action would have no effect on the hydrology of San Diego Bay. Changes to the western salt ponds, including the proposal to breach the outer levee of Pond 11, would create a hydraulic connection between the pond and the bay. Additionally, a breach in the outer levee of Pond 10, at the current location of the existing tide gate, would provide a hydraulic connection between the pond and the Otay River channel.

Anecdotal evidence indicates that under existing conditions the properties located adjacent to Pond 10A, as well as existing storm drains in the area, can experience tidal inundation during periods of very high tides. Based on modeling conducted as part of the impact analysis, as described in the EA/Initial Study, the water levels in the western ponds during high tides would be the same under either the existing conditions or the future restored conditions. Therefore, the proposed project would have no effect on the level or rate of tidal flooding within the adjacent neighborhood. Nevertheless, under the proposed action a 1.5 to 2-foot-high berm would be constructed along the eastern edge of Pond 10A to contain tidal waters generated during very high tides. The Service will also coordinate with the City of Imperial Beach during final project design to address the effects of existing tidal conditions on the storm drains that empty into Pond 10A.

Additional analysis was also conducted to determine if pond restoration would result in any effects to adjacent properties during a significant storm event. The results of this modeling confirmed that the proposed action would not increase flooding on- or off-site in the event of substantial rainfall. Modeling results of potential tidal and stormwater flooding effects from

the proposed action on adjacent properties confirms that the proposed action would not result in significant adverse effects related to hydrology.

Water Quality

Proposed excavation within the western salt ponds and at the CVWR, as well as the construction of a new tide gate in Pond 12, would result in temporary increases in turbidity that could adversely affect water quality in San Diego Bay, if appropriate measures are not implemented to minimize the effects of the project. Prior to discharging any water from the ponds into the bay, transparency levels of the water within the ponds will be measured to ensure that the turbidity levels are acceptable for discharge. If turbidity levels in the ponds exceed the 20 percent threshold established by the San Diego Regional Water Quality Control Board, measures such as temporary retention ponds and silt curtains would be used to reduce turbidity to acceptable levels prior to discharge. Best Management Practices (BMPs), including silt curtains, silt fencing, temporary flashboards, and slope stability measures, would also be used at the CVWR and throughout the project site to ensure that sediment-laden waters are not permitted to flow from the construction site into San Diego Bay or other adjacent wetland areas.

Based on the results of the sediment sampling and laboratory analysis (*Anchor QEA 2009*) conducted to characterize the sediment chemistry and physical properties of the sediments in the western ponds, the sediment chemistry within the ponds would not result in the release of any chemical constituents into the bay that would represent cause for concern. Similar sampling and analysis, which is being conducted in coordination with U.S. EPA, U.S. Army Corps of Engineers, and the Service's Contaminants Division, is currently being conducted for the sediments at the CVWR to ensure that sediment chemistry and physical properties is suitable for the planned restoration and will not adversely affect water quality.

Greenhouse Gas Emissions

The project will generate Greenhouse Gas (GHG) emissions as a result of construction activities, however, the level of emissions generated is considered less than significant because measures have been incorporated into the scope of the project to adequately reduce overall emissions during construction. GHG emissions generated following initial project construction would be limited to vehicular emissions generated in association with project monitoring.

Sea Level Rise

Modeling was conducted to determine the effect of future sea level rise on habitat distribution in Ponds 10, 10A and 11 and the corresponding potential effects of flooding to adjacent structures (*Everest International 2009*). The model assumed the sea level rise scenarios of 16 inches (1.33 ft) by 2050, and 55 inches (4.58 ft) by 2100. Modeling results indicate that as sea level rises, upland habitat will be converted to intertidal habitat, and lower areas of intertidal habitat will be converted to subtidal habitat. Additionally, over the next 40 years, the current emphasis on cordgrass-dominated salt marsh habitat would gradually be converted to mudflat habitat particularly in Pond 11.

Despite these predicted habitat changes, the proposed restoration would still provide sufficient opportunity for the light-footed clapper rail to reestablish a viable population in the western salt ponds. Restoration of these ponds would also provide new habitat to support fish and migratory birds. As sea level rises and habitat conversion slowly occurs, the species supported in the western ponds would have the opportunity to slowly shift over to new areas of suitable habitat in the south bay. Plans for future restoration of the eastern salt ponds can be designed to take into account the changes that will be happening in the lower elevation ponds and ensure that areas with elevations suitable for mid- and high-salt marsh beyond 2100 are provided within the Refuge. Similar changes in habitat as a result of sea level rise are also anticipated at the CVWR and Emory Cove.

Air Quality

Based on the results of air quality modeling (*RBF 2009*), the PM₁₀ emissions and fugitive dust generated during project construction would exceed the established threshold unless appropriate mitigation measures are implemented during project construction. To avoid this impact, mitigation measures have been incorporated into the scope of the project to reduce these emissions to below a level of significance.

The Rule 1501 Federal Conformity Analysis has been structured to illustrate how a proposed action would meet the requirements of the Federal Clean Air Act General Conformity, as well as those set forth by the San Diego Air Pollution Control District. In this case, the project site is located within the San Diego Air Basin, which is designated non-attainment under Federal standard for Ozone (O₃). As the ozone precursor compounds (VOCs and NO_x) combine in the troposphere and are not necessarily additive air quality modeling conducted for this project indicates that predicted ozone levels generated as a result of project construction are not expected to exceed the de minimis thresholds established for Federal Conformity.

Noise

The majority of the excavation and other associated construction for the proposed action would occur a significant distance from any sensitive receptors, however, construction activities associated with the proposed action could result in noise impacts if appropriate measures are not implemented to minimize these impacts. To reduce noise levels to below a level of significance and ensure that excess noise levels would not impact residents located in the vicinity of Ponds 10 and 10A, appropriate mitigation measure have been incorporated into the scope of the project.

Biological Resources

The proposed action is a habitat restoration and enhancement project, therefore, most of the habitat losses associated with the project would involve either temporary loss of habitat that would be restored at the end of construction, or the replacement of one habitat type with another (e.g., open water with salt marsh habitat, degraded high salt marsh habitat with higher quality low and mid-marsh habitat, and degraded habitat dominated by invasive plants with native wetland and upland species). Net changes of habitat types resulting from each project component would result in a net gain of each type of wetland habitat to be affected. For example, the loss of high salt marsh habitat at the CVWR and on the levees of the

western salt ponds would be offset by the restoration of more than 15.4 acres of high salt marsh habitat throughout the overall project site.

Wetland impacts associated with the installation of a tide gate in Pond 12, which would occur a year prior to restoration, would impact approximately 204 square feet of intertidal habitat. This impact would be fully mitigated by restoring habitat elsewhere on the Refuge at a replacement ratio of 4:1.

Converting the western salt ponds from a closed system to tidally influenced habitat could displace some avian species, while other avian species would benefit from expanded foraging opportunities. The two breaches proposed in the existing levees would not significantly alter current roosting opportunities; however, the conditions surrounding this levee would change from an open water environment to a tidal regime. To better understand the effects of these changes, pre- and post-project monitoring of avian use within the ponds would be conducted.

No permanent adverse impacts to essential fish habitat are anticipated. Rather, the project will restore or enhance 35.4 acres of shallow subtidal habitat, 19.5 acres of mudflat, and 166.4 acres of coastal salt marsh to benefit fish species in the bay.

No impacts to eelgrass are anticipated, however, to verify that no unintended effects to eelgrass have occurred as a result of the project, pre- and post-construction eelgrass surveys will be conducted along the alignment of the pipeline (assuming the material from the CVWR is slurried to Pond 11), as well as around the proposed site of the outer levee breaches in Ponds 10 and 11 and the proposed site of the new tide gate in Pond 12.

To reduce impacts to nesting seabirds and breeding listed species, construction will be conducted between September 15 and March 1, which is outside the bird breeding season. Potential impacts related to night lighting (should it be required in association with the proposed dredging operation) to light-footed clapper rails that may be present in the marsh habitat to the north of Pond 11 or within the Otay River channel to the east of the western ponds would be reduced by directing lighting toward the work area and away from the adjacent marsh habitat.

Slurrying material from the CVWR would require that a floating or submerged pipeline be extended from the island to Pond 11 across shallow water and mudflats during the period of construction. Slurrying material from the CVWR would require that a floating or submerged pipeline be extended from the island to Pond 11 across shallow water and mudflats during the period of construction. To protect sea turtles, various measures have been incorporated into the scope of the project to avoid direct and indirect impacts during pipeline installation and removal, as well as during the time that the pipeline is present with the bay, which is expected to be approximately four months.

Cultural Resources

No cultural resources have been identified at the Emory Cove site or the CVWR; therefore, no effects to cultural resources are anticipated at these locations as a result of restoration and enhancement activities.

Two cultural resources determined to be eligible for listing on the National Register of Historic Places occur in proximity to the western salt ponds. These sites include one historic site, Western Salt Works, and one prehistoric site, CA-SDI-5454/12270. Under the proposed project, the western salt ponds would be removed from the functional portion of the solar salt operation. The outer levees would be breached in two locations, but the remaining portions of the levees would be retained. As part of this proposal, the existing tide gate in Pond 10 would be removed and a new tide gate would be installed in the outer levee of Pond 12. The new tide gate would provide a new water intake point for the remaining salt ponds to the east, allowing the solar salt operation to continue.

Restoring the western salt ponds would alter the current and historic character of the western ponds, which are contributing elements of the Western Salt Works site. To reduce the effects of the project on this cultural resource, prior to completion of final restoration plans, the Service will enter into a Memorandum of Agreement with the State Historic Preservation Officer to implement measures that would reduce the potential impacts to below a level of significance.

Site CA-SDI-5454/12270 occurs along the western edge of Ponds 10 and 11; therefore, construction activities in the ponds could adversely affect the site if appropriate measures are not taken to protect it. To ensure no adverse effects to the site result from project implementation, measures (e.g., determining the eastern boundary of the site, fencing the area during construction to keep equipment away from the site) have been incorporated into the scope of the project that would avoid any disturbance to the site.

Traffic Circulation

The total number of trips to be generated by the project would not contribute significantly to current traffic volumes in the vicinity of the project, nor would the project directly or cumulatively affect existing congestion in the vicinity of proposed project activities. Once restoration is completed, the only trips generated by the project would be occasional trips to and from the site for monitoring, management, and law enforcement. If trucking of material from the CVWR to Pond 11 is implemented, this activity would be limited to non-peak hours which would avoid any impacts to the surrounding circulation system. Traffic control would be implemented to avoid any safety issues associated with trucking activity at the project sites.

Public Recreation

Impacts to bicyclists using the Bayshore Bikeway and boaters in south San Diego Bay could occur as a result of various construction proposals. These impacts would be reduced to below a level of significance through the implementation of specific measures related to traffic control, signage, and public outreach.

Environmental Justice

The proposed action would not result in disproportionate adverse human health impacts or environmental effects to low-income or minority populations. Potential noise and traffic impacts would be reduced to below a level of significance and no long term adverse impacts to the surrounding community would result from the proposed restoration projects.

Cumulative Effects

All impacts related to the proposed action would be mitigated to below a level of significance through the incorporation of specific measures into the scope of the project. Because the majority of the impacts are temporary and these, as well as all other potential impacts, would be mitigated to below a level of significance, the proposed action would not significantly contribute to regional cumulative impacts related to water quality, air quality, GHG emission, noise, or recreation.

Construction of the tide gate would permanently impact up to 204 square feet of tidally influenced habitat that would be mitigated at a ratio of 4:1 on Refuge land located upstream of the tide gate. The proposed mitigation would offset the direct and cumulative impacts of installing the tide gate. Therefore, this action would not contribute cumulatively to the loss of wetlands in San Diego Bay.

Overall, the proposed action would result in the restoration of over 220 acres of tidally influenced coastal wetlands, representing a positive cumulative effect for natural resources in San Diego Bay.

Measures Incorporated into the Proposed Action to Mitigate Adverse Effects

The following measures have been incorporated into the proposed project to avoid and minimize impacts to the environment:

Mitigation Measures Related to Water Quality - Prior to Service acceptance of the 50,000 cubic yards of material from the CVWR, the Port shall characterize the sediment chemistry and physical properties of the sediments to be excavated at the CVWR and submit the results of the characterization to the Service's Contaminants Division for review. The Service will accept the material for placement in Pond 11 only if the Service determines that the sediment properties will not result in adverse effects to the bay's water quality or biological processes within in the bay and/or restored salt ponds. In addition, the Service and the Port shall implement Best Management Practices to avoid and minimize impacts related to turbidity, erosion, and sedimentation during construction. The requirement for implementing Best Management Practices shall be included in the final construction specification for the various restoration projects.

Mitigation Measures Related to Air Quality - The final construction plans and specifications for restoration at the CVWR and the western salt ponds shall include requirements for the implementation of measures to prevent visible dust emissions from leaving the project site boundary, including, but not limited to, watering prior to and during any earth movement, watering exposed soil three times per day, installing wind fencing, covering excavated materials to prevent erosion, and stopping work during high wind conditions. Erosion control within each of the project limits shall also be required as part of the standard project specifications.

In addition, the final construction plans and specifications for restoration at the CVWR and the western salt ponds shall include the requirement that all equipment shall meet APCD

standards; the construction contractor shall cover all haul vehicles to reduce fugitive dust generated during the transport of materials; the construction contractor shall not allow construction equipment and vehicles to track dirt and dust onto public roads; all equipment and tires shall be washed/swept prior to leaving the project site; and Best Management Practices shall be used to fuel and maintain construction equipment and construction facilities.

Mitigation Measures Related to Noise - The final construction plans and specifications for restoration at the CVWR and the western salt ponds shall include the requirement that prior to site mobilization, a construction management plan shall be prepared to ensure that all construction equipment is equipped with properly operating and maintained mufflers; construction noise is reduced by shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and using electric air compressors and similar power tools, rather than diesel equipment, wherever feasible; stationary construction equipment is placed such that emitted noise is directed away from sensitive noise receivers; stockpiling and vehicle staging areas are located as far as practical from noise sensitive receptors; and earthmoving equipment is operated as far away from vibration-sensitive sites as possible.

Mitigation Measures Related to Biological Resources - The final construction plans and specifications for restoration at the CVWR and the western salt ponds shall include the requirement that 1) all construction be limited to the period September 15 to March 1, which is outside the breeding bird nesting season; and 2) if night lighting is required for construction, all lighting shall be directed toward the work area and proper shielding be used to avoid light spilling over into adjacent marsh habitat.

The scope of the restoration project shall include the implementation of a monitoring plan involving monthly pre- and post-project monitoring of bird use within the western salt ponds. Upon completion of the monitoring program, the monitoring results should be analyzed and described in a report to be provided to the Service's Carlsbad Fish and Wildlife Office, USFWS Region 8's Division of Migratory Bird Management, and other interested agencies and individuals for future reference in evaluating similar projects.

Prior to completion of tide gate construction, the Service shall restore and enhance approximately 820 square feet of intertidal habitat at a site located on the Refuge along the south side of the Otay River channel, upstream of the proposed tide gate project. The specific size of the area to be restored within the proposed restoration site will be determined once the final construction drawings for the tide gate have been completed and the total area of impact can be determined. The total area of mitigation will be based on a replacement ratio of 4:1 (i.e., four square feet of restoration/enhancement for every one square foot of habitat lost).

To ensure that any inadvertent impacts to eelgrass as a result of installing a temporary pipeline across the bay, breaching the levees in Ponds 10 and 11, and/or installing a new tide gate in Pond 12 are mitigated to below a level of significance, the Service and/or the Port will conduct pre- and post-construction eelgrass surveys in the vicinity of the proposed

construction sites within 30 days of project commencement and completion. If any impacts are identified, mitigation shall be implemented as dictated by the Southern California Eelgrass Mitigation Policy (SCEMP, Revision 11; NMFS 1991). In accordance with the SCEMP, loss of eelgrass will be mitigated with restoration at a 1.2:1 area ratio.

The final construction plans and specifications for transporting material from the CVWR to Pond 11 via a temporary pipeline across San Diego Bay shall include the following measures to avoid and minimize impacts to sea turtles: 1) contractor access within the waters of San Diego Bay shall be limited to the placement and removal of and monitoring and maintenance of the dredge material pipeline; 2) the five mile per hour boating speed limit in the south bay shall be adhered to at all times; 3) the dredge pipeline shall be floated into position and removed from its temporary position across the South Bay Power Plant cooling water discharge channel during high tides when there is adequate clearance for vessel work above the bottom; 4) the dredge pipeline shall be anchored into place for the duration of work; 5) adequate clearance for turtle research vessels and turtle passage shall be ensured by sinking the dredge pipeline within the subtidal portion of the discharge channel , 6) an impingement barrier structure or rock filter shall be installed at the temporary 10-foot-wide water intake cut to prevent adult fish and turtles entrainment, and 7) the vessel operator shall not deploy any materials into the bay that have the potential for entangling sea turtles, Additionally, the Port shall conduct a preconstruction meeting with all construction personnel and project managers to review all measures required to be implemented to protect sea turtles.

Mitigation Measures Related to Cultural Resources - Prior to project construction, the Service shall enter into a Memorandum of Agreement with SHPO to document past, current, and post-restoration conditions within and surrounding the affected areas of the salt works and interpret the historic significance of the site. Historic features will be photographically documented using 35 mm or large format black and white photographs; historic, current pre-restoration and post-restoration aerial photographs will be assembled of the affected ponds; and a detailed description of the affected site features and their associated construction methods will be provided. The above mentioned material will then be assembled into a historic resource evaluation of the western salt ponds and copies of the evaluation will be provided to the California Office of Historic Preservation and the following local repositories: Chula Vista Heritage Museum, San Diego Historical Society, and San Diego Archaeological Center. Within three months of project implementation, the San Diego National Wildlife Refuge Complex will develop interpretive materials including at least one interpretive panel to be installed along the Bayshore Bikeway or South Bay Birding and Walking Trail that introduces the story of the Western Salt Company.

Prior to completion of the final restoration plans, the western edge of Pond 10 and the potential access route for haul truck between SR-75 and the northern levee of Pond 11 shall be surveyed to determine the northern and eastern site boundary of CA-SDI-5454/12,270. If it is determined that the site boundaries extend into the pond, the restoration plans shall exclude these areas from the construction site and the construction specifications shall clearly indicate all areas in which construction activity shall be avoided. In addition, any portions of the site that extend into the ponds will be protected with temporary construction fencing to ensure that no portions of the site are inadvertently impacted by construction equipment. If

the site extends into the truck access route, any surface artifacts would be collected, cataloged, and properly curated in accordance with existing regulations. If deemed necessary, the route would also be capped to prevent any disturbance to subsurface deposits.

Mitigation Measures Related to Traffic - The final construction plans and specifications for restoration at the CVWR shall: 1) state that transport of material between the CVWR and Pond 11 will only be permitted between the hours of 9:00 a.m. and 4:00 p.m. to avoid the use of roadways during peak traffic hours; and 2) require the preparation and implementation of a traffic control plan consistent with the guidelines and standards provided in Chapter 2 of the Caltrans Construction Manual and Section 110.7 (Traffic Control Plans) of the Highway Design Manual and approved by Caltrans, District 1 as part of a required encroachment permit.

Mitigation Measures Related to Recreation - The final construction plans and specifications for restoration at the CVWR shall include the following requirements if pumping of excavated material is proposed as part of the project: 1) hazard buoys and/or signage shall be provided along the alignment of the pipe that crosses the bay to demarcate its location for recreational boaters; and 2) the Contractor shall provide at least one area along the proposed temporary pipeline that is sunken within the channel located adjacent to the CVWR in order to accommodate small vessels traveling through the area.

In addition, prior to installing the pipeline across the bay, the Port shall prepare and distribute notices describing the location of the pipe to all personal water craft rental businesses located from Pepper Park south, and shall also post notices in the Notice to Mariners.

The final construction plans and specifications for restoration of CVWR and western salt ponds shall include a requirement that the Contractor provide flaggers and signs when construction vehicles will be accessing or crossing public streets.

Public Review

The Service and Conservancy jointly prepared a draft and Final EA/Initial Study, along with a Mitigated Negative Declaration (MND) and Mitigation, Monitoring, and Reporting Program. These documents were distributed for public review on September 17, 2009, and comments were accepted through October 19, 2009. A notice of the availability of the draft MND and draft EA/Initial Study was published in the Union Tribune and a compact disk (CD) of the draft documents and/or a notice were provided to the various federal, state, and local agencies, Tribal governments, organizations, and other interested parties. The documents were also submitted to the State Clearinghouse for distribution to potentially affected state agencies. In addition, notices were mailed to adjacent property owners. Copies of the documents were available for review at local libraries and posted electronically on both the Service and Conservancy websites.

A Public Workshop was also held on October 8, 2009 in Imperial Beach to provide the public with an opportunity to obtain more information about the proposals and the review process. Approximately 300 workshop notices were mailed to individuals, agencies, and organizations. A total of 28 people attended the workshop.

During the public comment period, 11 comments related to the adequacy and accuracy of the draft MND/EA and 8 requests for an extension of the public review period were received. Responses to the comments received during the public comment period are included as Appendix B to the Final EA/Initial Study. Changes to the main text of the document made in response to the comments received are indicated with underlining. Those who provided comments were sent an electronic copy of the Final EA/Initial Study and accompanying Final MND.

Other Statutory Compliance Requirements

Compliance with all statutory requirements will be achieved prior to the initiation of the various project components. Section 7 compliance has been completed by the Service and NOAA for species covered by the Endangered Species Act and all measures identified during informal consultation to ensure that no take of listed species would occur have been incorporated into the scope of the project as described above. Required permits, agreements, and/or concurrence from the U.S. Army Corps of Engineers, San Diego Regional Water Quality Control Board, State Historic Preservation Office, and California Coastal Commission will be obtained prior to project implementation in accordance with the special conditions to be included in the WSFR's and NOAA/MNFS subsequent award letters.

Conclusions

Based on review and evaluation of the information contained in the supporting references, it is my determination that the proposed action does not constitute a major Federal action that would significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the NEPA of 1969. Accordingly, the Service is not required to prepare an Environmental Impact Statement.

This FONSI and supporting references are on file at the U.S. Fish and Wildlife Service, San Diego NWR Complex, 6010 Hidden Valley Road, Suite 101, Carlsbad, CA 92011 (telephone 760-930-0168). These documents are available for public inspection. Interested and affected parties are being notified of our decision through a press release, website updates, and the mailing of a Restoration Update newsletter.

The Service concurs that the preferred alternative, which consists of Alternative 1A(Option 1), Alternative 2A(Option 1), and Alternative 3A should be the selected alternative for restoring and enhancing coastal habitats in south San Diego Bay. However, if Alternative 2A (Option 1) is deemed infeasible, Option 2 would also be an acceptable option for project implementation. Where applicable, mitigation measures to avoid and minimize adverse effects mentioned above would be adopted and included as special conditions in the WSFR's subsequent award letter, included as special environmental compliance standards on the construction plans and specifications for the western salt ponds and CVWR, and/or included as special conditions in associated permits and approvals (e.g., Section 404 Nationwide 27 Permit, 401 Certification).

Supporting References

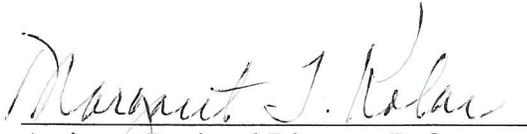
Anchor QEA, L.P. 2009. Sampling and Analysis Results Report, South San Diego Bay Salt Ponds 10, 10a, and 11. Prepared for the U.S. Fish and Wildlife Service.

Everest International. 2009. South San Diego Bay Salt Pond Restoration Project, Western Salt Pond Restoration, Hydraulic and Sea Level Rise Analysis and Modeling. (draft)

RBF Consulting. 2009. South San Diego Bay Wetland Restoration Project, Air Quality/Global Climate Change Technical Memorandum.

U.S. Fish and Wildlife Service. 2006. San Diego Bay National Wildlife Refuge Sweetwater Marsh and South San Diego Bay Units Final Comprehensive Conservation Plan/Environmental Impact Statement.

U.S. Fish and Wildlife Service (USFWS) and California Coastal Conservancy. 2009. Environmental Assessment/Initial Study for the South San Diego Bay Coastal Wetland Restoration and Enhancement Project.

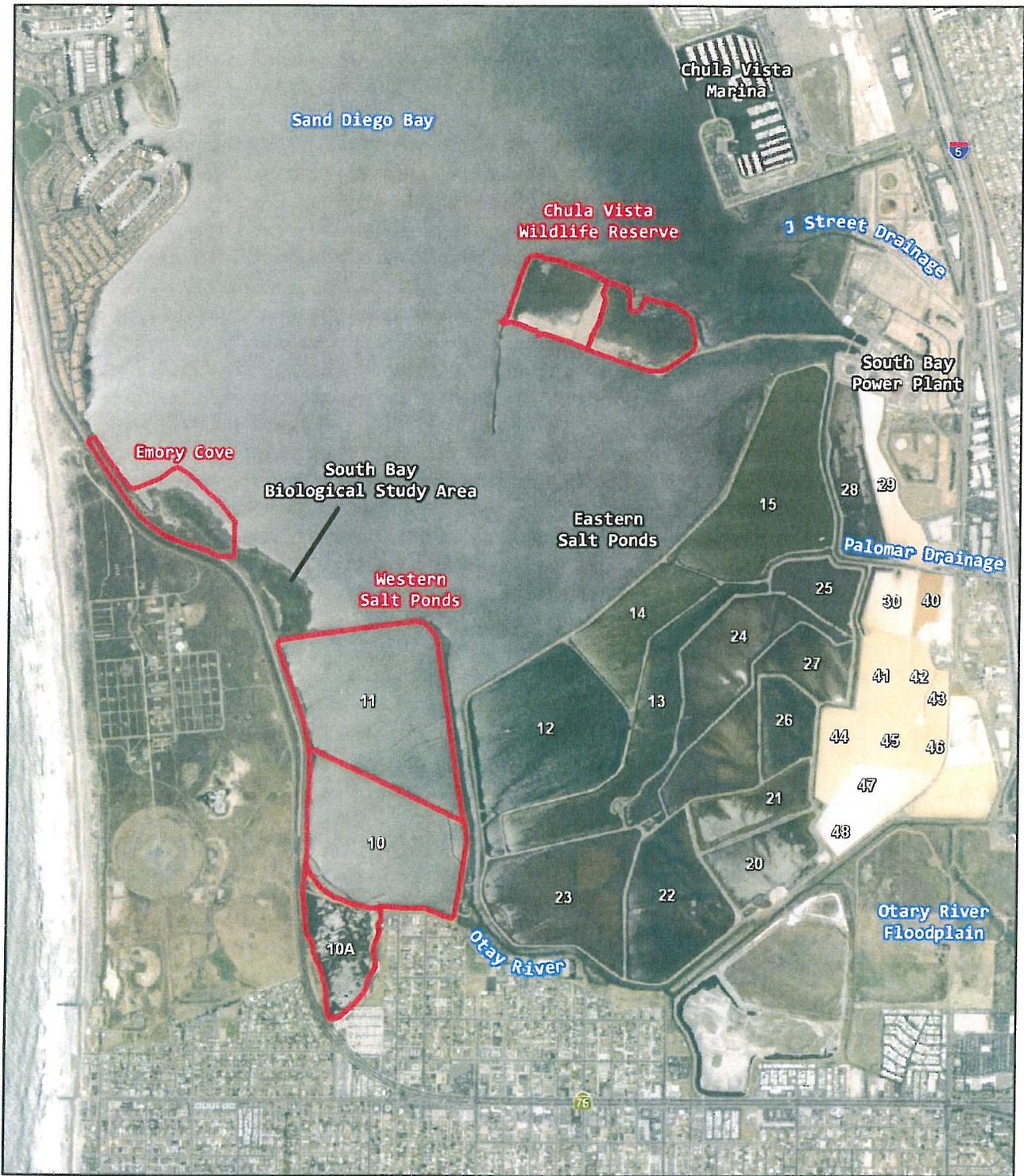

Assistant Regional Director, Refuges
Pacific Southwest Region

12/10/09
Date

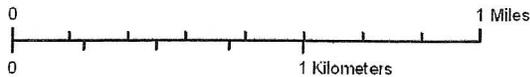
Attachments: 1. Vicinity Map
2. Location Map



Figure 1 - Vicinity Map
South San Diego Bay Coastal Wetland Restoration and Enhancement Project



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 Data Source: FWS, CASIL
 Image Source: USGS NAIP 2005



- Project Boundaries
- 10 Salt Pond Number

Figure 2 - Location Map
South San Diego Bay Coastal Wetland Restoration and Enhancement Project