

**UNITED STATES DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE**

**Otay River Estuary Restoration Project  
San Diego Bay National Wildlife Refuge**

**San Diego County, California**

**October 19, 2018**



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**UNITED STATES DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE**

**RECORD OF DECISION**

**OTAY RIVER ESTUARY RESTORATION PROJECT  
SAN DIEGO BAY NATIONAL WILDLIFE REFUGE**

**San Diego County, California**

**I. Introduction**

The United States Department of the Interior, Fish and Wildlife Service (USFWS or Service), has prepared this Record of Decision (ROD) regarding the Otay River Estuary Restoration Project (ORERP) at the San Diego Bay National Wildlife Refuge (NWR). This ROD documents the decision of the Service regarding restoration of two sites located within the South San Diego Bay Unit of the San Diego Bay NWR in southwest San Diego County, California. The Otay River Floodplain Site is a 33.51-acre area of primarily disturbed habitats in the Otay River floodplain, located west of Interstate 5, generally between the Bayshore Bikeway to the north and Palm Avenue to the south. The Pond 15 Site is a 90.90-acre active solar salt pond within the northeastern portion of the South Bay Salt Works that operates on the Refuge under a Refuge Special Use Permit. This ROD includes a statement of the decision made, the basis for the decision, a description of other alternatives considered, a description of the Preferred Alternative, an overview of measures to minimize environmental harm, and a summary of public involvement in the decision-making process.

Documents used in preparation of this ROD include the Final Environmental Impact Statement (Final EIS) for the ORERP and the Service's Intra-Service consultation under the Endangered Species Act dated October 11, 2018. These documents are incorporated by reference (40 CFR 1502.21). In addition, the Service informally consulted with the National Marine Fisheries Service under the Endangered Species Act and incorporated all of the conservation measures they recommended into the project. The Service is the NEPA lead agency and the U.S. Army Corps of Engineers (Corps), is a Cooperating Agency for the Final EIS. The Corps will issue a permit, processed in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, to allow the proposed restoration activities to occur within jurisdictional waters of the United States.

## II. Background

In 2006, the Service completed the San Diego Bay NWR Comprehensive Conservation Plan (CCP), associated Final EIS, and accompanying ROD (71 FR 64552–64553). As the guiding document for the management of the San Diego Bay NWR, the CCP describes, among other things, the wildlife and habitat management goals and objectives for the Refuge. The ORERP is proposed for implementation within the South San Diego Bay Unit of the San Diego Bay NWR; therefore, the habitat management and restoration goals and objectives included in the CCP for the South San Diego Bay Unit are applicable to the current proposal. These include enhancing opportunities for seabird nesting, restoring native habitat in the Otay River floodplain, improving habitat quality for listed species, and restoring tidal circulation within the majority of the Refuge's salt pond complex. The ORERP will assist in achieving these objectives by restoring approximately 34 acres of native coastal wetland and upland habitat within the Otay River Floodplain Site and about 91 acres of intertidal coastal wetlands and associated uplands at the Pond 15 Site.

The ORERP is a partnership between the San Diego Bay NWR and Poseidon Resources (Channelside) LP (Poseidon) to both restore coastal wetland habitats on the Refuge and meet Poseidon's permit requirements for the Claude "Bud" Lewis Carlsbad Desalination Plant (Carlsbad Desalination Plant) in Carlsbad, San Diego County, California. Restoration activities will be funded by Poseidon to meet mitigation obligations required by the California Coastal Commission's (Commission) Special Condition 8 of Coastal Development Permit E-06-013 for the construction and operation of the Carlsbad Desalination Plant. These requirements are set forth in the *Marine Life Mitigation Plan* (MLMP), approved by the Commission in August 2008. Following the Commission's approval of the MLMP in 2008, the San Diego Regional Water Quality Control Board (Regional Board) added a fish productivity requirement to the MLMP based on impingement of marine organisms at the Carlsbad Desalination Plant. It is based on both actions that Poseidon is required to restore 66.4 acres of coastal wetlands as mitigation for impacts related to the operation of the desalination facility in Carlsbad.

## III. Decision (Selected Action)

The Service will implement the Preferred Alternative, which is Alternative B (Intertidal Restoration) as described in the Final EIS. Implementation of the restoration actions described under Alternative B would occur in accordance with a Refuge Special Use Permit issued by the Service to Poseidon for the implementation, management, and monitoring of the restoration sites for the life of Poseidon's Coastal Development Permit.

The implementation of Alternative B will restore approximately 125 acres of native coastal wetlands and uplands within the Otay River Floodplain and Pond 15 areas of the San Diego Bay NWR. The various project features of Alternative B are presented in section 2.3.2.2 in the Final EIS and consist of Otay River channel protection, staging areas, temporary water crossings to facilitate construction access, bike path rerouting, salt pond levee modifications, haul road routes, and the potential use of a conveyor belt system to haul material. Alternative B includes additional conservation measures in response to comments received during the public comment period. Alternative B, the Selected Action, is summarized below.

Under Alternative B, the Otay River Floodplain Site will be excavated to create approximately five acres of intertidal mudflat, 25 acres of intertidal salt marsh habitat, one acre of transitional habitat and high tide refugia, and four acres of upland habitat. Approximately 320,000 cubic yards of soil will be excavated from the site to achieve the elevational contours suitable for sustaining intertidal wetlands. The majority of the excavated material, approximately 260,000 cubic yards, will be transported to Pond 15 to be beneficially used as fill and cover within the Pond 15 Site, as well as to reinforce existing levees around the restored pond.

The proposed elevations in Pond 15 will support approximately 10 acres of subtidal habitat, 18 acres of intertidal mudflat, 57 acres of intertidal salt marsh habitat, 1.6 acres of transitional habitat and high tide refugia, and 4 acres of upland habitat.

Both restoration sites will be planted with an appropriate mix of native plants that will mature into a range of wetland, transitional, and upland habitats consistent with the final elevations within the sites.

Two transport options have been evaluated for moving excavated material from the Otay River Floodplain Site and the Pond 15 Site: 1) truck transport via existing public roadways, and 2) the use of a conveyor belt system that would extend from the Otay River Floodplain Site through the salt works on the existing salt pond levees to the Pond 15 Site. The transport method ultimately used will be determined by the Refuge Manager in consultation with Poseidon.

After the above-described restoration earthwork has been completed, approximately 36,000 cubic yards of material will remain. This material will be placed over an area east of Nestor Creek within the Otay River floodplain that contains elevated levels of contaminants, primarily DDT. The resulting exposure reduction cover (ERC) would be 1.0 foot to 1.5 feet in thickness, covering an area of approximately 23 acres. The ERC and construction staging area to the north and west of the ERC would be revegetated with native species using locally obtained seeds.

#### IV. Basis for Decision

The decision to select the Preferred Alternative is based on review and consideration of the analysis and information in the Final EIS and comments received throughout the process. In selecting a course of action for the ORERP, the decision to select the Preferred Alternative (Alternative B (Intertidal Alternative)) for implementation is consistent with agency policy, regulations, and all laws, and in particular, the goals, objectives, and strategies for the South San Diego Bay Unit, as presented in the Final CCP for the San Diego Bay NWR. The Selected Action (Preferred Alternative) is consistent with and would assist in achieving the purposes for which this Refuge was established, while also contributing to the mission and goals of the National Wildlife Refuge System.

In consideration of the potential cumulative effects of reasonably foreseeable activities and the public comments received on the Draft EIS and Final EIS, this decision provides the best balance of restoration activities to respond to the purpose and need, issues, and public comments, while complying with all applicable laws and regulations.

#### V. Other Alternatives Considered

The Draft EIS and Final EIS considered two additional alternatives that are summarized below.

**Alternative A - No Action.** Under the no action alternative, the Otay River Floodplain Site would not be restored to support coastal wetlands and Pond 15 would not be removed as an active part of the existing commercial solar salt operation and restored to tidally-influenced subtidal and intertidal habitat. The availability of restored coastal wetland habitat to support listed and migratory birds, fish, and other native species would not be realized.

**Alternative C - Subtidal Restoration.** Under Alternative C, approximately 370,000 cubic yards of material would be excavated within the Otay River Floodplain Site to create a combination of subtidal and intertidal habitat within the restored floodplain. The approximately 4.5 acres of subtidal habitat would be surrounded by approximately 6.5 acres of intertidal mudflat, 18 acres of intertidal salt marsh, and four acres of upland habitat.

Approximately 310,000 cubic yards of material excavated from the Otay River Floodplain would be beneficially used as fill and cover within the Pond 15 Site. The same transport options would be considered under Alternative C. Under the Subtidal Restoration Alternative, the Pond 15 Site would be contoured to create approximately 10 acres of subtidal channel, 16

acres of intertidal mudflat, 59 acres of intertidal salt marsh, two acres of high tide refugia, and four acres of upland habitat. Both restoration sites would be planted with an appropriate mix of native plants, as described under Alternative B.

Similar to Alternative B, approximately 30,000 to 40,000 cubic yards of excess excavated material from the Otay River Floodplain Site would be placed over about 23 acres of contaminated soils on the Refuge to the east of Nestor Creek to create a 1.0 to 1.5-foot thick ERC. The ERC and construction staging area to the north and west of the ERC would be revegetated with native species using locally obtained seeds.

## VI. Environmentally Preferred Alternative

Pursuant to the Council on Environmental Quality regulations implementing NEPA (40 CFR 1505.2(b)) and Department of Interior NEPA regulations (43 CFR 46.450), the Service must identify the environmentally preferable alternative(s) in the ROD. The environmentally preferable alternative is defined as “the alternative that will promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act. Section 101 states that “...it is the continuing responsibility of the Federal Government to...

- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environmental without degradation, risk to health or safety, or other undesirable and unintended consequences;
- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment that supports diversity, and variety of individual choice;
- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities; and
- (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”

Based on the information and analyses presented in the Final EIS, the Service has determined that Alternative B (Intertidal Alternative) is the environmentally preferable alternative as it would result in the restoration of coastal wetland habitat that was lost to development in the 1900s. The reestablishment of tidally influenced wetlands within the Refuge will restore habitat to support listed and sensitive species, native fish, and other wildlife.

Alternative C would provide similar benefits to biological resources, but the implementation of this alternative would result in the need to excavate more material from the Otay River Floodplain Site and transport more material to the Pond 15 Site than that proposed under Alternative B. The result would be higher construction vehicle trip generation, greater fuel consumption, higher greenhouse gas emissions, and potentially greater dust generation under Alternative C.

Although Alternative A (No Action) would not result in the temporary increase in traffic, fuel consumption, and greenhouse gas emissions associated with the two action alternatives, Alternative A would also not result in any new environmental benefits to listed and sensitive species, fish, and other wildlife supported by native habitats, including tidally influenced coastal wetlands. In addition, the exposure reduction cover to be vegetated with native upland species, as proposed under Alternatives B and C, would not be provided under Alternative A. Therefore, the chance of exposing DDT-contaminated soils to erosion during a significant storm event may be slightly higher under the No Action Alternative.

## VII. Measures to Minimize Environmental Harm

The Service, having investigated all practical measures to avoid or minimize environmental impacts that could result from the Preferred Alternative, has incorporated a range of measures into the scope of the Selected Action. These measures are presented in Attachment 1 and summarized below.

Topography/Visual Quality: Any vegetative screening or revegetation of areas disturbed by restoration actions will be implemented in accordance with a Service-approved revegetation plan.

Geology/Soils: Prepare and implement a project-specific stormwater pollution prevention plan (SWPPP).

Paleontological Resources: Retain a qualified paleontologist to be present to monitor any ground-disturbing activities that occur at depths greater than 10 feet below ground surface.

Hydrology/Water Quality: Implement measures to minimize turbidity levels in San Diego Bay and dust levels during transport of excavated material.

Noise: Limit construction to between the hours of 7 a.m. and 7 p.m. Monday through Saturday.

**Biological Resources:** Protect adjacent habitats during construction, restore to pre-construction conditions and vegetate with appropriate native plant species all areas disturbed during restoration, and mitigate impacts to existing wetland habitats and sensitive plant species at specified replacement ratios.

Restrict construction to the non-breeding season and monitor areas where sensitive species are present within the Refuge year long.

**Cultural Resources:** Implement all stipulations included in the Memorandum of Agreement between the Service and the State Historic Preservation Office and implement cultural resource monitoring during excavation.

**Traffic/Circulation:** Implement a traffic control plan for all public rights-of-way to be used in association with restoration. Provide warning signs and flaggers at locations where construction vehicles will cross the Bayshore Bikeway or cross access points to adjacent bike paths.

## IX. Public Involvement

Public involvement has been an essential component of the EIS process for the ORERP. The Service developed a list of public individuals, organizations, Tribes, and local, State, and Federal agencies that would likely be interested in the ORERP. We communicated with the public, Tribes, and affected agencies at every step along the process, from initial scoping, through analysis, and publication of the Draft EIS and Final EIS. Highlights of our public involvement process are provided below.

The Service published a Notice of Intent (NOI) to prepare an EIS for the ORERP in the Federal Register on November 14, 2011 (76 FR 70480). The NOI requested public comment on the ORERP from November 14, 2011 to January 6, 2012. Two public scoping meetings were held on December 6, 2011: one in the afternoon and one in the early evening. A total of 22 individuals, representing elected officials, agencies, organizations, Tribes, and the public at large, attend the December 6 scoping meetings.

Following a determination that additional acreage was needed for restoration, the Service published a second NOI in the Federal Register on January 8, 2013 (78 FR 1246) to address changes in the scope of the project. The public comment period extended from January 8, 2013

to February 8, 2013. A scoping meeting was held on January 23, 2013, at which 14 people participated.

The Notice of Availability (NOA) of the Draft EIS was published in the Federal Register on October 21, 2016 (81 FR 72817). Comments were due by December 5, 2016, but the comment period was extended to December 30, 2016 at the request of several members of the public (81 FR 95176). Also on October 21, 2016, the Environmental Protection Agency (EPA), pursuant to Section 309(a) of the Clean Air Act, provided a notice in the Federal Register of the availability of the Service's ORERP Draft EIS (81 FR 72803). The Notice of Availability of the Draft EIS was also provided to the California State Clearinghouse.

In conjunction with the publishing of the various Federal Register notices, the San Diego Bay NWR also distributed a Restoration Update to provide members of the public, agencies, Tribes, and organizations with information about the project, how to provide comments, where to review documents, and times and locations of public meetings. Approximately 300 Restoration Updates were distributed at the same time as a Federal Register notice was published. Legal notices were also published in the local newspaper (San Diego Union Tribune).

The Service filed the Final EIS with the EPA and published a Notice of Availability of the Final EIS for the ORERP in the Federal Register on May 18, 2018 (83 FR 23289). The EPA's Notice of Availability for the Final EIS was published on May 21, 2018 (83 FR 23461).

In response to the Notices of Availability of the Final EIS, the Service received two letters one from the EPA and the other from the California State Coastal Conservancy. The letters and the Service's responses to these letters are provided in Attachment 2.

A notice informing the public of the availability of this ROD will be published in the Federal Register, a Restoration Update will be distributed, and the ROD will be posted on the Refuge webpage.

## X. Implementation

Implementation of this decision has not occurred sooner than 30 days after the EPA published their notice of the Final EIS in the Federal Register, on May 21, 2018, (83 FR 23461).



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**Regional Director**      *Acting*  
**Pacific Southwest Region**  
**U.S. Fish and Wildlife Service**

10/19/18

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**Date**

### **Attachments:**

- Attachment 1: Measures Incorporated into the Scope of the Selected Action to Avoid and Minimize Impacts to the Environment
- Attachment 2: Comment Letters Received on the Final EIS and Associated Responses

## **Attachment 1**

### **Measures Incorporated into the Scope of the Selected Action to Avoid and Minimize Impacts to the Environment**

**Attachment 1**  
**Measures Incorporated into the Scope of the Selected Action**  
**to Avoid and Minimize Impacts to the Environment**

All practicable means to avoid or minimize environmental harm from the implementation of the Selected Action will be achieved through the implementation of these measures, which will be conditions of all applicable permits and approvals.

**Topography/Visual Quality**

**Measure 1:** Should slope armoring along the Otay River channel be deemed necessary, a revegetation plan and accompanying monitoring plan to address the establishment of vegetative screening for the affected area shall be approved by the U.S. Fish and Wildlife Service (Service) and the Executive Director of the California Coastal Commission (Commission) prior to the initiation of the project. The revegetation plan shall be prepared by a qualified restoration specialist and shall identify the proposed plantings, hydroseed mix, and applicable treatment, monitoring, and success criteria.

Following installation of the Otay Channel Protection (if required) as proposed adjacent to the Bayshore Bikeway and Pond 48 (Project Feature 2, as shown on Figure 2-1a in the FEIS), low shrub vegetation shall be installed to enhance existing visual screening of the Otay channel. Vegetative screening shall be implemented on the south side of the fence line along the Bayshore Bikeway where channel armoring is visible to cyclists utilizing the Bikeway. Planting of low shrub vegetation shall only be required where existing vegetation does not adequately screen views of the proposed armoring for Otay channel protection project feature. Plant material to be installed and planting density/spacing shall be consistent with existing vegetation located on the south side of Bikeway-adjacent fencing, or as adequate to screen views of the project feature.

The Otay Channel Protection area shall be monitored and maintained during the establishment of the vegetation to control weeds and ensure that the site is meeting applicable success criteria. If necessary to meet these success criteria, additional hydroseeding and/or plantings shall be conducted and/or adaptive management measures shall be implemented as needed until the Otay Channel Protection area vegetative screening area is adequately vegetated (see Appendix D of the FEIS). The revegetated area shall continue to be monitored and maintained for a period of 5 years after the success criteria has been met to ensure that no significant weed infestations or vegetation losses are occurring. Monitoring reports shall be submitted to the Service annually to detail the progress towards achieving the required species and vegetation coverage. Once the approved success criteria have been met, a final report shall be submitted to the Service and the Commission to document completion in accordance with the approved revegetation plan.

### **Geology/Soils**

**Measure 1:** A project-specific stormwater pollution prevention plan (SWPPP) shall be prepared and approved by the Service and the Regional Water Quality Control Board before the start of construction. The SWPPP shall be implemented by the contractor throughout the duration of construction, including while construction activities are temporarily halted during the core nesting season. The best management practices (BMPs) contained in the SWPPP shall include, but are not limited to, silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydroseeding to prevent soil erosion and sedimentation during wind and rain events. Implementation of these BMPs as delineated in the SWPPP shall apply to all areas proposed for excavation. Structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs. The SWPPP shall also include a schedule and protocols for inspection, cleaning and repairing of BMPs. The Service is responsible for ensuring that the contractor implements and maintains the BMPs identified in the SWPPP.

**Measure 2:** To ensure the long-term stability of all slopes created within the project site, a post-construction erosion control plan shall be prepared by a registered professional engineer or certified hydrogeologist and approved by the Service prior to the commencement of grading. A map or graphic shall be included in the erosion control plan identifying the locations and specific erosion and sedimentation control measures to be implemented. As part of the erosion control plan, the contractor shall be required to confirm that slope gradients are constructed as designed, all post-construction erosion control measures are in place, and the slopes are planted or seeded immediately upon completion of construction activities consistent with the revegetation plan as identified under Topography/Visual Quality above.

Planting and/or seeding of slopes material shall be monitored and maintained during establishment of the vegetation to ensure that vegetative cover, as determined by a qualified restoration specialist, is achieved as specified in the restoration and upland planting plans includes as Appendix C and D in the FEIS.

### **Paleontological Resources**

**Measure 1:** Prior to commencement of any grading activity on site, Poseidon shall retain a qualified paleontologist, subject to the review and approval of the Service. The qualified paleontologist shall be on site during all rough grading and other significant ground-disturbing activities in depths greater than 10 feet below ground surface.

The paleontologist shall prepare a paleontological resources impact mitigation program for the proposed action. The program shall be consistent with the guidelines of the Society of Vertebrate Paleontologists (2010) and shall include the following:

- Attendance at the pre-construction conference by a qualified paleontologist or his/her representative.
- Development and implementation of a training program for project personnel.
- Monitoring of excavation activities by a qualified paleontological monitor in areas identified as likely to contain paleontological resources. The monitor shall be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor shall be empowered to temporarily halt or divert equipment in the area of the find in the event paleontological resources are discovered.
- Because the underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix, these sediments shall occasionally be spot-screened through 1/8- to 1/20-inch mesh screens to determine whether microfossils exist. If microfossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed.
- Preparation of recovered specimens to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost for the developer.
- Identification and curation of specimens into a museum repository with permanent retrievable storage.
- Preparation of a report of findings with an appended itemized inventory of specimens. When submitted to the Service, the report and inventory would signify completion of the program to mitigate impacts to paleontological resources.

### **Hydrology/Water Quality**

**Measure 1:** Just prior to breaching Pond 15, the Service shall ensure that the turbidity level measured in Pond 15 does not exceed 20 percent of the turbidity level measured in the area of the Bay located adjacent to Pond 15. If the turbidity level in Pond 15 is found to exceed the 20 percent threshold, breaching shall be delayed until the turbidity level in Pond 15 is consistent with the 20 percent threshold. In addition, the breaching of Pond 15 shall be scheduled to start during an incoming neap tide to minimize water velocities, thereby minimizing resuspension of sediment within Pond 15. During breaching, it is possible that some scour and associated resuspension could occur within the two channels located within Pond 15; therefore, monitoring of turbidity levels in Pond 15 shall be conducted during the breaching process. If evidence of

scour or resuspension of sediment is observed, then work shall be suspended until silt curtains are installed across the interior channels of Pond 15 to minimize turbidity and reduce the amount of resuspended sediment that could exit Pond 15 and enter San Diego Bay.

**Measure 2:** The Service shall ensure that prior to initiating the excavation of the inlet/outlet channel in the area immediately to the north of Pond 15 in San Diego Bay (as well as within Pond 15 should the levee be breached before the portion of the channel to be located within the boundaries of Pond 15 has been excavated) that a silt curtain has been deployed around the entire inlet/outlet channel work area to minimize turbidity impacts to Bay waters as result of excavation activities. In addition, the Service shall ensure that monitoring is conducted during the excavation process to verify that turbidity levels outside of the area enclosed by the silt curtain are within acceptable levels (i.e., within 20 percent of the turbidity level measured in adjacent areas of the bay undisturbed by project activity). If acceptable levels are exceeded, excavation operations shall be stopped until the Service is assured that corrective measures are in place to reduce turbidity levels outside of the silt curtain to acceptable levels. Following completion of the levee breach and excavation of the inlet/outlet at Pond 15, a qualified engineer shall inspect the site for erosion or sedimentation impacts and the structural integrity of the levee. A report outlining the findings of the inspection, along with the identification of any concerns and recommendations for appropriate actions to address any identified concerns, shall be provided to the Service within 30 days of the inspection. Similarly, silt curtains shall be installed and turbidity levels monitored around construction activities associated with reinforcing bridge piers and when installing rock for bank protection.

**Measure 3:** Prior to commencement of construction activities, the contractor shall prepare to the satisfaction of the Service a hazardous substance management, handling, storage, disposal, and emergency response plan for all phases of construction. The plan shall address where and how construction vehicles will be parked, fueled, and serviced and what actions will be taken to avoid and reduce the risk of accidental release of hazardous materials (e.g., diesel fuel, gasoline, lubricants, coolant, oil solvents, cleaners) during construction activities at the site. The plan shall also identify the worst case spill scenario and list the protocols for spill prevention and response actions that would be taken in the event of unintended spillage of hazardous materials or unintended release of hazardous substances during construction activities. As part of plan implementation, a hazardous materials spill kit shall be maintained on site and a construction monitor shall be designated to ensure that all contractors are in compliance with applicable regulations, including regulations regarding hazardous materials and hazardous wastes, including disposal. Hazardous materials shall not be disposed of or released on the ground, in the underlying groundwater, or in any surface water. Totally enclosed containment shall be provided for all trash. All construction waste, including litter, garbage, and other solid waste, shall be diverted, recycled, or properly disposed of. Petroleum products and

other potentially hazardous materials shall be removed to a waste facility permitted to treat, store, or dispose of such materials.

**Measure 4:** The Service shall ensure that appropriate measures are implemented by the contractor during the transport of excavated material from the Otay River Floodplain Site to the Pond 15 Site to prevent the release of excavated material and dust into adjacent upland and wetland habitats and open water areas, as well as to minimize the potential for tracking dirt onto surface streets. Such measures shall include always covering the loads of trucks hauling excavated or other loose materials on public streets and requiring trucks hauling materials within the project site to maintain at least 2 feet of freeboard (i.e., vertical space between the top of the load and top of the trailer); watering active haul roads and staging areas as needed to minimize the generation of dust from construction activity; installing wheel washers where vehicles enter and exit unpaved roads; conducting daily street sweeping if visible soil materials are carried to adjacent streets; and establishing construction traffic speeds of 15 miles per hour or less on all unpaved roads. All construction workers shall be educated on proper protocols for loading, transport, and unloading of trucks prior to commencement of soil-hauling activities.

If excavated material is to be transported between the Otay River Floodplain Site and the Pond 15 Site via conveyor belt, the following procedures shall be followed:

- While excavated material is being loaded onto the conveyor belt for transport to Pond 15, the Contractor shall ensure that dust suppression is performed in accordance with Rule 55 or per more detailed requirements outlined in the specifications, whichever is more restrictive.
- During or after the excavated material is loaded onto the conveyor belt, the excavated material shall be sprayed with water to prevent material from blowing off the conveyor belt and if necessary, the material will be tarped to prevent dust emission and/or the spilling of excavated material from belt. Tarps or catchment aprons shall be install on the underside of the conveyor belt where it crosses the Otay River or crosses or borders any salt ponds in areas where there would be the potential for the water and substrate within the ponds to be contaminated by spillage from the conveyor belts.
- The process shall be continually monitored to ensure that excavated material is not entering any water bodies, including the Otay River and nearby salt ponds. If necessary to protect water quality, additional measures will be implemented to minimize the loss of excavated material from the belt.

Additionally, a soil transport monitoring plan shall be prepared by the construction contractor for review and approval by the Service prior to commencement of soil transport activities. The soil

transport monitoring plan shall include operational protocols to ensure that unanticipated spills of transported soil material do not occur from conveyor belt or truck transport operations and monitoring protocols to detect any spills that do occur. The monitoring plan shall also include remediation actions that will be implemented in the event of unintended spill or leakage of excavated material into adjacent wetland areas and salt ponds during soil transport via conveyor belt or truck transport.

### **Noise**

**Measure 1:** Construction plans shall indicate that the hauling of material from the Otay River Floodplain Site to the Pond 15 Site will only be conducted between the hours of 7 a.m. and 7 p.m. Monday through Saturday and is not permitted on Sundays or between the hours of 7 p.m. and 7 a.m. on any day.

**Measure 2:** All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.

**Measure 3:** Construction noise reduction methods, such as shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools rather than diesel equipment, shall be used.

**Measure 4:** During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive noise receptors.

**Measure 5:** During construction, construction and vehicle staging areas shall be located as far as practical from noise-sensitive land uses.

### **Biological Resources**

**Measure 1:** To avoid or minimize the permanent loss of native habitat or plant communities resulting from project features, any areas that are bridged, reinforced, or widened to accommodate construction equipment would be restored to pre-construction conditions and vegetated with appropriate native plant species once construction is complete per the Construction Methods as described in Section 2.3.2.4 of this environmental impact statement. This includes the 1.36 acres of jurisdictional impacts. To avoid or minimize any long-term impacts to habitat or vegetation, staging areas, access routes, and other disturbed areas shall be decompacted and recontoured to ensure proper site drainage, and revegetated with appropriate native species. Any temporary equipment, structures, or utilities (e.g., water, power) installed at the project site shall be removed at the completion of construction. Impacts from project features that cannot be restored to pre-construction conditions due to the requirements of the construction

will be mitigated per the restoration outlined in the FRP. In addition, the temporary impacts (0.62 acre) to the California Coastal Commission-only wetlands (mule fat scrub and Otay River Floodplain Restoration Site) shall be replaced in kind immediately upon completion of construction.

**Measure 2:** Mitigation for conversion of wetlands from one type to another resulting from implementation of Alternative B shall be provided in accordance with the Final Restoration Plan (FRP; Appendix C of the FEIS) at a 1:1 ratio.

**Measure 3:** Mitigation for permanent impacts to wetlands resulting from implementation of Alternative B shall be provided in accordance with the FRP (Appendix C of the FEIS) at a 4:1 ratio.

**Measure 4:** Prior to construction, the boundaries of the project site, including staging areas, and truck haul routes, shall be flagged and protective fencing/silt fencing shall be installed to the satisfaction of the San Diego Bay NWR Manager or designated project biologist as approved by the Service. Silt fencing shall also be installed around all existing cismontane alkali marsh to protect it from sedimentation, excessive runoff, and human intrusion. Construction plans shall include notes or mapping of the location of the protective fencing. In addition, a biological monitor shall be present during the pre-construction meeting and during initial grading of these areas to ensure that no construction activity occurs outside the designated construction boundaries. The biological monitor shall be on site during clearing, grubbing, and grading activities to ensure that the approved limits of disturbance are not exceeded. The biological monitor shall also conduct periodic monitoring of storage areas, and protective fencing. Before construction activities occur in areas containing sensitive biological resources, all workers shall be educated by an approved biologist to recognize and avoid those areas that have been marked as sensitive.

In addition to Measures 3 and 4 described in the Hydrology/Water Quality section, the project biologist shall monitor conditions in sensitive habitat areas located adjacent to ongoing construction to ensure that no impacts related to sedimentation are occurring. If impacts are noted, additional measures shall be developed and implemented to minimize the effects of dust and sedimentation on sensitive resources.

**Measure 5:** To mitigate for the loss of estuary seablite (*Suaeda esteroa*), a sensitive plant species, from the Otay River Floodplain Site and Pond 15 Site, estuary seablite shall be included in the planting palette. Estuary seablite planting shall be included in the mid-high marsh habitat and shall be planted at a 2:1 mitigation ratio in newly created mid to high marsh areas, and *lyceum californicum* and *Suaeda taxifolia* shall be included in the planting palette for the new

wetlands at a 1:1 ratio. A monitoring plan and success criteria for evaluating estuary seabird populations shall be included in the FRP required by Measure 1 for topography and visual quality.

**Measure 6: Special-status birds.** No earlier than 30 days prior to the commencement of clearing, grubbing, and earth movement on the project site, the Refuge Manager and/or project biologist shall conduct focused pre-construction surveys for light-footed Ridgway's rail (*Rallus obsoletus levipes*) and other avian species (such as western snowy plover (*Charadrius alexandrinus nivosus*), Belding's Savannah sparrow (*Passerculus sandwichensis beldingi*) and burrowing owl (*Athene cunicularia*)) in the vicinity of the project site. Daily surveys for the presence of rails (family Rallidae) and other sensitive bird species shall be conducted at the Otay River crossing, in the Palomar channel, and in other potential rail habitat areas in the vicinity of the project. If sensitive species are present, an air horn or cracker shells shall be deployed to move the birds off the site prior to commencement of construction activities. If noise proves ineffective, physical presence may be used to haze birds and move them to safer parts of the San Diego Bay NWR. Such monitoring shall continue throughout the day to discourage rails and other birds from moving back into the project site, particularly during periods when construction equipment is not operational, such as during breaks. A subsequent pre-construction survey shall be conducted prior to the commencement of construction activities in subsequent years and daily monitoring should be reinitiated until all construction activity ceases on the project site.

**Measure 7:** To avoid impacts to nesting birds, all construction activity in and surrounding the Otay River Floodplain Site and the Pond 15 Site shall be confined to the period between September 30 and February 15, unless work outside this period is authorized by the Refuge Manager.

**Measure 8: Sea Turtles Monitoring during In-water Construction Activities.**

**Palomar Drainage Channel Work:** A biologist will be present during the installation and removal of the truck crossing to be constructed across the Palomar drainage channel to monitor for the presence of sea turtles in the area. The monitor shall adhere to the following protocols:

1. **Duration of Monitoring** – Every day that construction will be occurring in the Palomar drainage channels, a qualified biologist shall monitor for the presence of sea turtles for at least 15 minutes prior to the start of construction and 15 minutes prior to reinitiating construction after a break of 30 minutes or longer, and continuing monitoring throughout the day while construction activity is occurring.
2. **Monitoring Zone** – The area to be monitored for the presence of sea turtles shall include the waters within the effluent channel of San Diego Bay that extend from the

western levee of Pond 15 to the eastern terminus of the effluent channel, as well as the area within the Palomar Channel north of the proposed truck crossing.

3. Shutdown Zone – If a turtle is observed within the monitoring area, the biologist shall notify the construction operators of the possible need to temporarily shut down operations and if the turtle is sighted within 300 feet of the inlet to the Palomar Channel, the biologist shall instruct the operator to cease all construction activity within the water until the turtle is observed to have moved out of the area, or if the turtle is not re-sighted after at least 15 minutes and the biologist through visual inspection of the Palomar Channel has determined the turtle is not present within the channel.

Levee Breaching and Channel Dredging for the Pond 15 Site: A biologist will be present during levee breaching and all construction activity in San Diego Bay related to connecting Pond 15 to tidal bay waters to monitor for the presence of sea turtles in the area. The monitor shall adhere to the following protocols:

1. Duration of Monitoring – Every day that construction will be occurring or vessels are operating, a qualified biologist shall monitor for the presence of sea turtles for at least 15 minutes prior to any activity in the channel or breached pond and 15 minutes prior to reinitiating construction or vessel movement after a break of 30 minutes or longer, and continuing monitoring through the duration of the day while construction related activities are occurring in the Bay or the breached pond.
2. Monitoring Zone – The area to be monitored for the presence of sea turtles shall include all of the waters within the effluent channel of the Bay that extend from 1,000 feet west of the western levee of Pond 15 to the eastern terminus of the effluent channel.
3. Shutdown Zone – If a turtle is observed within 500 feet of active vessel movement or dredging activity, the biologist shall temporarily shut down operations until the turtle is observed to have moved out of the area, or if the turtle is not re-sighted after at least 15 minutes.

Removal of the Northern Berm at the Otay River Floodplain Site. A biologist will be present during removal of the northern berm the separates the Otay River Floodplain Site from the Otay River channel to monitor for the presence of sea turtles in the area. The monitor shall adhere to the following protocols:

1. Duration of Monitoring – Every day that construction will be occurring to remove the northern berm of the Otay River Floodplain Site, a qualified biologist shall monitor for the presence of sea turtles for at least 15 minutes prior any excavation activity and 15 minutes prior to reinitiating such activity after a break of 30 minutes or longer, and continuing monitoring through the duration of the day while this construction is occurring.
2. Monitoring Zone – The Otay River channel from the point where the Bayshore Bikeway bridge crosses the channel downstream to the construction site will be monitored for the presence of sea turtles, in the unlikely event that a sea turtle travels into this area.
3. Shutdown Zone – In the remote chance that a turtle is identified in the area downstream of the Bayshore Bikeway bridge, the biologist shall cease all in-water activity until the turtle is safely out of the area.

**Measure 9: Protection of Eelgrass Habitat.** To evaluate the effects, if any, of the proposed action on eelgrass and its habitat functions, pre- and post-breaching eelgrass (*Zostera* spp.) surveys shall be conducted in San Diego Bay in the area that extends east/west from the eastern edge of Pond 15 to an area approximately 1,000 feet from the western edge of the bay and approximately 1,500 feet north of Pond 11, as well as north/south generally between the Chula Vista Wildlife Reserve and the edge of the mudflats to the north of the salt ponds. Additionally, the surveys shall include the length of the Otay River channel from the open bay south to the opening in Pond 10. If the two areas are not proposed to be breached/opened during the same general time frame, it will be necessary to conduct one set each for the breaching of Pond 15 and the opening of the Otay River Floodplain Site. If this is the case, the required survey of the Otay River channel would only be required for the opening of the Otay River Floodplain Site.

The pre-breaching surveys shall be completed within 60 days before the start of breaching/opening. The post-breaching surveys shall be completed within 30 days of the end of all breaching/opening activities, or within the first 30 days of the next active growth period following completion of activity that occurs outside of the active growth period. Pre- and post-breaching surveys shall also include a 50-acre control site located to the east of Coronado Cays. All surveys shall be conducted in accordance with the requirements for mapping efforts conducted in southern California, as presented in the California Eelgrass Mitigation Policy (CEMP) and Implementing Guidelines (NOAA Fisheries 2014).

If impacts to eelgrass and/or its habitat functions from implementation of the proposed action are identified, mitigation shall be provided in compliance with the CEMP. The Service shall

develop an Eelgrass Mitigation Plan that includes a description of the impact, identification of a mitigation site that provides mitigation at the appropriate ratio, identification of a suitable local reference site, success criteria for the mitigation site and a monitoring plan for the mitigation and reference sites. Monitoring reports shall be filed with the resource agencies and the Executive Director of the California Coastal Commission.

### **Cultural Resources**

**Measure 1:** Prior to commencement of any project excavation, a Memorandum of Agreement between the Service and the State Historic Preservation Office (SHPO) shall be signed that requires the following stipulations to be completed within 1 year of the commencement of project excavation: (1) in addition to the existing Historic American Landscape Survey (HALS) documentation, entitled *Cultural Resources Evaluation for the U.S. Fish and Wildlife Service Otay River Estuary Restoration Project, Otay Mesa, San Diego County, California*, supplemental photodocumentation will be conducted for Ponds 13, 14, and 15 and the northern portion of Pond 20A; (2) oral history research will be conducted to document the history of the salt works and its ultimate inclusion in the San Diego Bay National Wildlife Refuge (NWR), as well as the 100-year-plus salt-making process at this site; (3) an overview of the salt works history will be posted on the NWR website; and (4) an interpretive panel that expands upon the interpretation already developed to inform visitors of the historic significance of the salt works will be designed, fabricated, and installed on the NWR.

**Measure 2:** The Service shall ensure that prior to the commencement of construction activities at either the Otay River Floodplain Site or the Pond 15 Site, the construction contractor has implemented protective measures such as temporary ballasts, wood beams, or other protective crossing mechanisms to protect the historic rail tracks located along Bay Boulevard at the construction access point to the Pond 15 Site. These temporary protective measures shall be periodically inspected to ensure their integrity and shall remain in place until all construction activity has ceased within the Pond 15 Site.

**Measure 3:** A qualified archaeologist meeting the Secretary of the Interior's Standards and Guidelines: Professional Qualifications Standards and a Kumeyaay cultural monitor shall monitor all grading and subsurface disturbance within the project's area of potential effect. If any cultural resources are discovered during excavation, all earthwork in the vicinity shall be halted and the Service's Regional Historic Preservation Officer shall be immediately contacted to review the materials and recommend a treatment that is consistent with applicable laws and policies.

In addition to standard monitoring techniques, for monitoring in wet areas the archaeological and Kumeyaay cultural monitors will select 5-gallon samples of excavated sediment to be screened

through 1/8 inch wire mesh screen. Wet sediments may be stockpiled and dried prior to sampling by the monitors, before sediments are re-compacted as fill on site or hauled off site.

If artifacts or other resources are identified, then the Project archaeologist will determine, in consultation with the Service's Regional Historic Preservation Officer, if the discovery constitutes a potential intact resource. If potential intact resources are discovered, then the notification and treatment methods outlined in Measure 4, below, would be implemented. The treatment plan would likely require the boundaries of the site to be defined before excavation can be reinitiated in the vicinity of the discovery. The site shall be recorded and evaluated for eligibility for listing in the National Register of Historic Places (NRHP). Once this work is completed, additional measures may be required, depending on the results of the eligibility determination. If any site is encountered that is determined to be eligible for listing in the NRHP, the Service shall consult with the SHPO, federally recognized tribes, and interested parties, and additional measures may be required.

The archaeological and Kumeyaay cultural monitor shall provide a monitoring report to the Service's Regional Historic Preservation Officer and the San Diego Bay NWR Manager describing the activities and findings of the monitoring effort within 30 days of the completion of all monitoring activity. Summaries of all actions taken related to the discovery of cultural resources during site excavation shall be provided to the Service's Regional Historic Preservation Officer and the NWR Manager within 15 days of completion of the action.

**Measure 4:** All archaeological resources encountered on the San Diego Bay NWR shall be handled in accordance with federal regulations. With respect to artifacts collected on the San Diego Bay NWR, either as part of site investigations and recovery or inadvertent discovery during excavation, the Service will ensure proper care of Federally owned and administered archaeological collections, including ensuring that prehistoric and historic artifacts and associated records are deposited in an institution with adequate long-term curatorial capabilities that can provide professional, systematic, and accountable curatorial services on a long-term basis. The curation institution will meet the federal curation standards as required in 36 CFR 79.

**Measure 5:** In the event of the inadvertent discovery of human remains, the Service's Regional Historic Preservation Officer and the San Diego County Coroner shall be immediately contacted per the Native American Graves Protection and Repatriation Act (NAGPRA) Section (3)(d)(1). All earthwork in the vicinity of the discovery shall be halted and the discovery site shall be secured from further disturbance. If the remains are determined to be Native American, all required NAGPRA inadvertent discovery procedures, including, but not limited to, initiating consultation with the Kumeyaay Cultural Repatriation Committee, developing a plan of action,

and repatriating any NAGPRA cultural items (i.e., funerary objects, sacred objects, objects of cultural patrimony) and/or human remains, shall be followed.

### **Traffic/Circulation**

**Measure 1:** Prior to the commencement of any sediment transport, a construction area traffic control plan or detour plan shall be prepared for each location where construction activities would encroach into the right-of-way of a public roadway. The plans would include, but not be limited to, such features as warning signs, lights, flashing arrow boards, barricades, cones, lane closures, flaggers, pedestrian detours, parking restrictions, and restricted hours during which lane closures would not be allowed (e.g., 7 to 9 a.m. and 4 to 6 p.m.) or as determined by the Service.

**Measure 2:** The contractor shall schedule all deliveries of construction materials and equipment to the project site to avoid peak-hour traffic congestion (e.g. 7 to 9 a.m. and 4 to 6 p.m.) or as determined by the Service.

### **Public Utilities and Easements**

**Measure 1:** Prior to the completion of final project construction plans, individual utility agencies with utilities located within or adjacent to areas of construction activity shall be contacted to determine the extent and type of temporary protective measures that must be implemented to prevent construction damage to surface and subsurface utilities.

### **Public Access and Recreational Opportunities**

**Measure 1:** 30 days prior to the start of any clearing and grubbing or mobilization(s), whichever occurs first, the contractor shall install warning and notification signs at the following locations: 1) along the Bayshore Bikeway in both directions and 50-feet away in both directions from the construction access point to the Pond 15 Site where vehicles will be crossing the Bayshore Bikeway and 2) at the Main Street/Frontage Road entrance to the Bayshore Bikeway in both directions and 50-feet away in both directions, as well as at the 13th Street entrance onto the east bound segment of the Bayshore Bikeway. The initial signs, to be posted 30 days prior to the start of construction, will alert riders of upcoming construction activity and the potential for future delays due to the presence of construction vehicles. Prior to initiating construction and installing protective materials on the bike path, the initial signs shall be replaced with warning signs informing riders to expect delays due to construction vehicles crossing the bikeway or entering Main Street from the project site, as applicable. Where protective materials will be installed on the bicycle path, the warning signs shall clearing alert riders to slow down due to the uneven surfaces that the protective materials will create. The contractor shall maintain all signs in good order throughout each of two construction periods. At the end of each construction period, the Bayshore Bikeway shall be returned to documented pre-project conditions. Prior to

commencement of the second year of construction, the same signage procedures shall be followed as described above.

Similarly, at 50-feet away from the Main Street entrance (north end) and at and 50-feet away from the Saturn Boulevard entrance (south end) to the Saturn Boulevard bike path initial signs shall be installed 30 days prior to construction to alert riders about the upcoming construction and associated temporary reroute of the bike path, including a map indicating where the reroute will be located, and two weeks prior to construction, signs, with a map of the rerouted section, shall be installed to direct users onto and along the rerouted section of trail. In addition, warning signs shall be installed 50-feet away from Main Street along the reroute informing users of presence of construction vehicles entering and exiting Main Street and the potential for delays. The temporary reroute and all directional signs shall be maintained throughout the two-year construction period. Prior to commencement of the second year of construction, the same warning sign procedures shall be followed as described above. At the end of construction, the Saturn Boulevard bike path shall be returned to documented, pre-project conditions.

During active construction, flaggers shall be present to control trucks and bicycle traffic on the Bayshore Bikeway, with flaggers present at the Main Street/Frontage Road entrance to the Bayshore Bikeway, at the construction access point to the Pond 15 Site, and at the northern extent of the rerouted Saturn Boulevard bike path. The contractor shall maintain the bikeway in good repair at all times, frequently remove any dirt or debris deposited on the bikeway or Main Street by trucks and construction equipment, and provide protective barriers as necessary.

**Measure 2:** Prior to the commencement of project construction, a reroute of the Saturn Boulevard bike path shall be designed and required approvals obtained, and prior to any other construction associated with the project, the contractor shall complete the approved temporary reroute of the bike path. Design, permitting, and construction shall be conducted in coordination with the City of San Diego Park and Recreation Department and Streets Division, as well as County of San Diego Park and Recreation Department. The project construction documents shall indicate that the contractor is responsible for restoring the existing bike path to documented pre-construction conditions following completion of all construction activities.

### **Economics and Employment**

**Measure 1:** To avoid conflicts with ongoing salt works operations, prior to the start of construction, the contractor shall provide the salt works management with an up-to-date construction schedule and timeline of activities related to the restoration project. The salt works management shall also receive monthly updates of construction progress and shall be informed immediately of any changes in the proposed schedule or timeline.

**Attachment 2**

**Comment Letters Received on the Final EIS**

## **Attachment 2**

### **Comment Letters Received on the Final EIS**

In response to the Notices of Availability of a Final Environmental Impact Statement (Final EIS) for the Otay River Estuary Restoration Project (ORERP) that were published in the Federal Register by the Department of the Interior Fish and Wildlife Service (Service) on May 18, 2018 (83 FR 23289) and by the U.S. Environmental Protection Agency (EPA) on May 21, 2018 (83 FR 23461), the Service received two letters. One letter was provided by the EPA and the other from the California State Coastal Conservancy (Conservancy).

The EPA letter, dated June 15, 2018, acknowledged the changes made to the project proposal between the Draft and Final EIS to address the potential mobilization of DDT-contaminated soil immediately to the east of the Otay River Floodplain Site. Specifically, the EPA states in their letter that the Service's plan to provide a permanent vegetated soil cover (an exposure reduction cover) over areas where high concentrations of DDTs were identified would reduce the concerns expressed in their comment letter on the Draft EIS, and they have no objections to the proposed project, as revised. No response from the Service was required. The letter from the EPA is attached.

The Conservancy's letter, dated July 5, 2018, expressed concern that the placement of approximately 36,000 cubic yards of excavated material from the Otay River Floodplain Site to create an exposure reduction cover on land located to the east of Nestor Creek – land that was purchased by the Conservancy and ultimately transferred to the Service for inclusion in the San Diego Bay NWR – is “not an appropriate use of the property.” Further, the Conservancy stated that the upland restoration proposal and required period of maintenance and monitoring was insufficient for the restoration effort. The Conservancy also express objection to the construction of a levee on the southern edge of the restored wetland on the Otay River Floodplain Site. The Conservancy's letter is attached.

The Service responded to these concerns in a letter dated July 16, 2018 (attached) and held a conference call with representatives from the Conservancy and Commission on July 17, 2018. The issue of “the appropriate use of the property” was resolved once the Service explained the concerns raised by the EPA and the Commission over the high levels of DDTs on the uplands east of Nestor Creek, and subsequent agreement that an exposure reduction cover would be placed over these lands to reduce the potential for erosion of the DDT-contaminated soils. Additionally, the Service explained the restoration, maintenance, and monitoring requirements included in the updated Planting Plan for Uplands (Appendix D of the Final EIS), which require a 5-year maintenance and monitoring program to ensure that restoration success criteria for the

restored uplands are achieved. With respect to the concerns raised about the levee, the levee or berm proposed for the southern edge of the restored wetland is intended to protect the abutting Port of San Diego property from tidal inundation and increased risk of flooding. The Port's property is currently protected by a berm along the northern edge of the restoration site, that berm will be removed to facilitate tidal inundation of the restored wetland and replaced with a new berm to be constructed along the southern boundary of the restored wetland, which would abut the Port of San Diego's northern property line. The Conservancy and Commission staff agreed with our responses to their concerns and no further analysis was needed.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901

June 15, 2018

Brian Collins  
U.S. Fish and Wildlife Service  
San Diego National Wildlife Refuge Complex  
P.O. Box 2358  
Chula Vista, CA 91912

Subject: Otay River Estuary Restoration, San Diego Bay National Wildlife Refuge Final Environmental Impact Statement, San Diego County, California  
[CEQ# 0180103]

Dear Mr. Collins:

The U.S. Environmental Protection Agency (EPA) has reviewed the Otay River Estuary Restoration Final Environmental Impact Statement (FEIS) pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

EPA provided comments to the U.S. Fish and Wildlife (the "Service") on the Draft Environmental Impact Statement (DEIS) on December 5, 2016. We rated the DEIS as Environmental Concerns - Insufficient Information (EC-2) due to concerns regarding the mobilization of DDT-contaminated soil and the consequent ecological effects that could result from the project.

The project has been revised in the Final EIS (FEIS) to include a permanent vegetated soil cover ("exposure reduction cover" or "ERC") over areas where high concentrations of DDTs were identified. According to the FEIS, fluvial modeling, updated for changes to the proposed project, shows that much of the area identified as contaminated with DDT would experience lower water velocities during flood events, thereby reducing the potential for mobilization of DDT-contaminated soil, as compared to the project without the ERC.

EPA finds that the changes described in the FEIS, together with the Service's plan for establishing and maintaining vegetation at the site, reduce our concerns. We appreciate the inclusion in the FEIS of additional information about ecological risk to fish, the Service's expectations for biological and post-flood monitoring at the site, the approach to revegetation and integrated pest management, and clarifications about how baseline contamination was included in the assessment of cumulative effects. We have no objections to the proposed project, as revised.

We appreciate the Service's commitment to consider alternatives to diesel generators, if the conveyor belt option for soil transport is selected. Even without alternative power sources, as described in the FEIS, the conveyor belt option would emit less air emissions for all criteria pollutants in the first two years of the project, as compared with the truck transport option. For this reason, and to further minimize air emissions, we encourage the Service to select the conveyor belt option for soil transport and to require the use of alternatives to diesel generators to the extent feasible.

Thank you for the clear and thorough responses to our comments on the DEIS and for the opportunity to review the FEIS. When the Record of Decision is signed, please send a copy to this address. If you have any questions, please contact me at 415-972-3521, or contact Hugo Hoffman, the lead reviewer for this project, at 415-972-3929 or [hoffman.hugo@epa.gov](mailto:hoffman.hugo@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Kathleen Martyn Goforth', written over a horizontal line.

Kathleen Martyn Goforth, Manager  
Environmental Review Section

cc (via email): Andy Yuen, U.S. Fish and Wildlife Service  
Michelle Lynch, U.S. Army Corps of Engineers  
Kate Huckelbridge, California Coastal Commission  
Lisa Honma, San Diego Regional Water Quality Control Board



Brian Collins, Refuge Manager  
USFWS San Diego NWRC  
P.O. Box 2358  
Chula Vista, CA 91912

July 5, 2018

Re: SCC response to the Otay River Estuary Restoration Project FEIS dated May 18, 2018

Dear Mr. Collins,

Thank you for the opportunity to comment on the Otay River Estuary Restoration Project (the "project"), as described in the Final Environmental Impact Statement published on May 18<sup>th</sup> 2018 in the Federal Register. In January 2000 the Conservancy helped the USFWS acquire significant acreage at the Otay Floodplain site (APNs 621-030-2000, 621-030-1800, 621-030-2500). These parcels became part of the San Diego Bay National Wildlife Refuge. At the time of the land transfer to USFWS, an MOU was entered into between Coastal Conservancy, Southwest Wetlands Interpretive Association, and USFWS. This MOU required that the site be used for purposes consistent with the Lower Otay Wetlands Enhancement Plan, and more specifically with the USFWS's Comprehensive Conservation Plan for the Refuge.

When USFWS began considering use of the Otay Floodplain as a mitigation site for the Poseidon Resources ("Poseidon") desalination plant in Carlsbad, CA, our agency expressed opposition to allowing the mitigation, as portions of the proposed project site had been acquired with public funds. Given this concern, the Coastal Commission set forth a condition in Poseidon's Coastal Development Permit No. E-06-013 requiring Coastal Conservancy approval of the restoration plan prior to Coastal Commission final approval of the project.

Today, the Conservancy finds that the mitigation project, as presented in the FEIS, does overlap parcels acquired with Conservancy funds, specifically the 40-acre floodplain area due east of Nestor Creek. This floodplain area east of Nestor Creek was eliminated from the wetland restoration footprint due to the presence of contaminated soils in the top one foot of portions of the area, including DDT contamination exceeding the Title 22 Total Threshold Limit Concentration for Total DDTs (22 CCR 66700)<sup>1</sup>. However, the area remains part of the project as one of the two designated placement sites for excavated material resulting from the main wetland restoration project. Appendix D of the FEIS, the "Planting Plan for Uplands" (dated April 7, 2015), calls for placement and hydroseeding of 36,000 cubic yards of excavated material from the project onto the floodplain acres east of Nestor Creek. Fill placement is intended to act as a cap on the existing DDT contamination while providing initial improvements to soil stability and habitat quality thru hydroseed establishment of native Diegan coastal sage scrub habitat. As detailed in Section 4.2.5.1.2 of the FEIS, under Alternative B (the preferred alternative as stated by the FEIS) the excavated material from the project site would be spread evenly over approximately 23.11 acres of the floodplain east of Nestor Creek, creating a 1 foot to 1.5-foot-thick exposure reduction cover on the contaminated acres.

1515 Clay Street, 10th Floor

Oakland, California 94612-1401  
510-286-1015 Fax: 510-286-0470

<sup>1</sup> see FEIS Chapter 3.2, figure 3.2-7 and table 3.2-11 for Otay River Floodplain soil sampling locations and results





It is our opinion that utilizing the property that the Conservancy helped to acquire as a disposal area for excavated materials is not an appropriate use of the property. This property should be enhanced or restored above and beyond Poseidon's mitigation requirements.

Based on the Conservancy's requirements for its acquisition areas to be used for enhancement and restoration activities that are above and beyond mitigation requirements, we offer the following comments:

1. Currently, the Appendix D Planting Plan for Uplands does not provide figures of where the 23.11 acres of excavated soil placement would occur within the 40-acre floodplain site, nor does it detail the specific areas to be hydroseeded under the Planting Plan. The Conservancy requests clear graphics be added to the FEIS detailing the placement of excavated soils and locations of subsequent revegetation efforts.
2. The Conservancy further finds that the current amount of revegetation work to be done on the floodplain acres purchased with state funds, as detailed in Appendix D, is not sufficient enough to be consistent with the purposes of the Refuge's CCP. The revegetation area does not seem to exceed requirements necessitated by the neighboring mitigation project west of Nestor Creek. The Conservancy requests that the full 40-acre floodplain site east of Nestor Creek be planted as uplands in order to achieve consistency with the purposes of the Refuge's CCP.
3. The Conservancy regards a three-year monitoring period as insufficient for this restoration effort and requests that site monitoring be extended to the same duration as the Otay Floodplain mitigation sites west of Nestor Creek. The Conservancy further requests that a detailed long-term maintenance plan for the revegetation of the areas in question be added to the FEIS.
4. Our one remaining concern on the project as detailed in the FEIS remains the 'Southern Otay River Floodplain Levee Relocation' feature. Reiterating the comment from our December 5<sup>th</sup>, 2016 letter, Coastal Conservancy objects to construction of a levee (or levee-like features) on the southern edge of the restored wetland. While Appendix A of the FEIS justifies this feature as necessary to preserve Port lands for future mitigation activities, the project has an opportunity to push toward ecologically-beneficial design along the southern portion of the site as opposed to making this short-term concession. Doing so would restore natural hydrologic function across the land segment as a whole in the near term, as opposed to deferring such ecological connectivity until the eventual future restoration of the Pond 20 site under a separate project action.

Sincerely,

  
Julia Elkin  
Project Manager

1515 Clay Street, 10th Floor  
Oakland, California 94612-1401  
510-286-1015 Fax: 510-286-0470



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
San Diego National Wildlife Refuge Complex  
Post Office Box 2358  
Chula Vista, California 91912



July 16, 2018

Julia Elkin  
Project Manager, South Coast Region  
California Coastal Conservancy  
1515 Clay Street, 10<sup>th</sup> Floor  
Oakland, California 94612-1401

Dear Ms. Elkin:

Thank you for your letter dated July 5, 2018, and your comments regarding the Final Environmental Impact Statement for the Otay River Estuary Restoration Project. I offer the following response for your consideration.

We greatly appreciate the California Coastal Conservancy's significant investments in the San Diego Bay National Wildlife Refuge-South San Diego Bay Unit (Refuge). Our partnership with the California Coastal Conservancy has restored salt marshes and riparian woodlands, expanded access for the public to enjoy the wildlife of south San Diego Bay, and supported field trips by local elementary school children to the Refuge (Enclosure 1). The important habitat restoration projects and expanded trails on the Refuge are guided by the 2006 San Diego Bay National Wildlife Refuge Comprehensive Conservation Plan and Environmental Impact Statement (CCP).

Likewise, the CCP guided and shaped the Otay River Estuary Restoration Project (ORERP). From the inception of our partnership with Poseidon Resources, we have together followed the CCP as the fundamental basis for the design of the ORERP. We have also worked closely with the California Coastal Commission staff and their Scientific Advisory Panel to ensure that the restoration project also meets the permit requirements under the Marine Life Mitigation Plan for the Claude "Bud" Lewis Carlsbad Desalination Plant. We believe that the environmentally-preferred alternative described in the Final Environmental Impact Statement (FEIS) for the ORERP is fully consistent with both the CCP and the 2000 Memorandum of Agreement among the U.S. Fish and Wildlife Service, California Coastal Conservancy, and Southwest Wetlands Interpretive Association.

### Specific Comments

1. "It is our opinion that utilizing the property that the Conservancy helped to acquire as a disposal area for excavated materials is not an appropriate use of the property. This property should be enhanced or restored above and beyond Poseidon's mitigation requirements."

In the CCP, Alternative C – Otay River Floodplain Restoration Option 1, we proposed excavating soil from the Otay River Floodplain Site and along the Otay River channel to create salt marsh habitat and beneficially reusing the material in a location east of Nestor Creek and west of the Otay River channel to restore native upland habitat (Enclosure 2). Under both ORERP action alternatives, a portion of the material excavated from the Otay River Floodplain Site would also be beneficially reused in a similar location previously identified in the CCP (east of Nestor Creek and west of the Otay River Channel) and restored to native upland habitat. The placement of approximately 36,000 cubic yards of excavated material to create the Exposure Reduction Cover and revegetating with native coastal sage scrub in the area east of Nestor Creek and west of the Otay River channel is consistent with the CCP and the envisioned restoration of the Otay River Floodplain.

We disagree with the view that the placement of the material on the area east of Nestor Creek to minimize the potential for erosion of DDT-contaminated soils is “not an appropriate use of the property.” High levels of DDT (and related breakdown products) were found in the in situ soils east of Nestor Creek as described in the FEIS and expressed again in your letter. The high levels of DDT are found on lands originally acquired by the California Coastal Conservancy and conveyed to the Refuge. The presence of high levels of DDT and other persistent organochlorine pesticides, along with the discovery of significant Native American cultural resources, resulted in the substantial redesign of the ORERP to exclude the restoration of wetland habitats east of Nestor Creek. In response to concerns raised by the Scientific Advisory Panel, Poseidon Resources and their consultants and the Carlsbad Fish and Wildlife Office-Division of Environmental Contaminants evaluated the potential for erosion, migration, deposition, and biological effects of DDT-contaminated soils from the areas east of Nestor Creek being transported into the restored and existing intertidal wetland habitats of Pond 20 and south San Diego Bay. The study concluded that modelling results based on a hypothetical 50-year and 100-year flood resulted in the prediction that less than significant biological impacts to wildlife would result from the erosion of DDT-contaminated soils into the restored areas of the Otay River Floodplain Site and south San Diego Bay (Appendix I of the FEIS for the ORERP).

In the draft EIS, we proposed to store approximately 36,000 cubic yards of material excavated from the Otay River Floodplain Site in two stockpiles located east of Nestor Creek. During the comment period for the draft EIS and in response to concerns raised by the U.S. Environmental Protection Agency and California Coastal Commission staff, Everest International (consultants to Poseidon Resources) suggested that instead of storing the material in two large stockpiles, a better design would be to spread the 36,000 cubic yards of material as a cover over the most-heavily DDT-contaminated areas east of Nestor Creek. Coupled with revegetation with native coastal sage vegetation, the Erosion Reduction Cover would further reduce the potential for erosion of DDT-contaminated soils from being deposited in the restored salt marsh in the Otay River Floodplain Site and south San Diego Bay. Revisions to the ORERP as described in the Final EIS resulted in the U.S. Environmental Protection Agency having no objections to the proposed project (Enclosure 3).

While described as a project feature in the Final EIS for the ORERP, the Erosion Reduction Cover is not part of the mitigation required under the Marine Life Mitigation Plan. Due to the presence of DDT-contaminated soil and the potential for significant impacts to important Native American cultural resources, the proposal to restore lands previously acquired by the California Coastal Conservancy to coastal wetlands was abandoned in favor of restoring native upland vegetation on soil cover to be placed over the contaminated site. This resulted in revising the OREPR to include the restoration of Pond 15 in order to achieve the required wetland mitigation required under the Marine Life Mitigation Plan. Since none of the mitigation required under the Marine Life Mitigation Plan would occur on lands previously acquired by the California Coastal Conservancy, we believe that we have addressed the concerns raised in the Conservancy's September 21, 2010 letter. The Erosion Reduction Cover is designed to reduce the threat to wildlife and the environment by the potential redistribution of the pre-existing DDT contamination on the lands acquired by the California Coastal Conservancy and later conveyed to the Refuge.

Since the area east of Nestor Creek is significantly constrained by the presence of high levels of DDT contamination and the presence of important Kumeyaay cultural resources, we believe that the Erosion Reduction Cover is an entirely appropriate use of the property. In fact, Poseidon Resources is enhancing this area beyond their mitigation requirements as suggested in your letter.

In response to your comment #1, Figure 2-1a of the FEIS depicts the location of the staging areas and Erosion Reduction Cover. The accompanying text indicates that these areas will be revegetated with appropriate native vegetation. The Special Use Permit (SUP) will include a similar map indicating where establishment of native upland vegetation is to occur within the area east of Nestor Creek, including both the approximately 23.11-acre Erosion Reduction Cover and staging areas.

In response to your comment #2, we are avoiding wetlands in the area east of Nestor Creek and west of the Otay River channel (see Figure 3.3-6 of the Final EIS). The eastern boundary of the Erosion Reduction Cover abuts the riparian restoration project completed by River Partners. Poseidon will be responsible for restoring native upland vegetation to all areas impacted by the ORERP. The restoration of any areas outside of the effects of the project remains the responsibility of the Service. With completion of the ORERP, nearly all of the Otay River floodplain within the Refuge will be restored to salt marsh, riparian woodland, and native upland habitats.

In response to your comment #3, the planting plan includes a five-year monitoring and management period, not a three-year monitoring period, and this monitoring and management period would be subject to extension if revegetation success criteria are not met within the initial five-year period. We believe a thirty-year monitoring period for the vegetation cover for the Erosion Reduction Cover is not necessary. The details of the

monitoring and management of the Erosion Reduction Cover will be incorporated into our SUP. The long term maintenance of the area east of Nestor Creek will fall under the management responsibilities of the Refuge once all success criteria are achieved for the revegetated areas affected by the ORERP.

In response to your comment #4, we cannot design and build a project that would increase the risk of flooding on neighboring properties. The existing berm along the north and east sides of Pond 20 prevents tidal and reduces fluvial flooding on portions of the Refuge and Port lands. We are removing the existing berm to restore tidal circulation to the restored salt marsh habitat on the Refuge portion of Pond 20 and relocating the berm to the property boundary to maintain the same level of flood protection on the Port property. We are in active discussions with the Port on their removal of the berm upon completion of their wetland mitigation bank. We share a common interest in having the salt marsh habitats be contiguous and not separated by a berm, but the removal of the berm cannot occur until the Port has completed the construction of their wetland mitigation bank.

Thank you for your continued interest in the restoration of the San Diego Bay National Wildlife Refuge.

Sincerely,



Andrew Yuen  
Project Leader

Enclosures