

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

**San Diego National Wildlife Refuge Complex**

1080 Gunpowder Point Drive

Chula Vista, CA 91910

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

for the

Seal Beach National Wildlife Refuge

Thin-layer Salt Marsh Sediment Augmentation Pilot Project

Orange County, California

The U.S. Fish and Wildlife Service (Service) and the California Coastal Conservancy (Conservancy) have prepared a joint Initial Study/Environmental Assessment (IS/EA) (USFWS and California Coastal Conservancy 2014) to evaluate the potential effects to the environment of implementing a pilot project for sea level rise adaptation within a 16-acre site in the existing coastal salt marsh habitat on the Seal Beach National Wildlife Refuge (NWR) in Orange 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 joint IS/EA (incorporated by reference herein) evaluated the potential effects of implementing the Seal Beach National Wildlife Refuge Thin-layer Salt Marsh Sediment Augmentation Pilot Project (Figures 1 and 2). The project proposes to apply a thin-layer of clean sediment of appropriate grain size to 10 acres of low salt marsh habitat within a 16-acre site on the Refuge to raise the marsh plain elevation. This action is proposed in response to ongoing adverse effects of subsidence and sea level rise on the quality of the site's cordgrass (*Spartina foliosa*)-dominated salt marsh habitat. The purposes of this action include improving habitat quality for the endangered light-footed Ridgway's rail (*Rallus obsoletus levipes*) (formerly referred to as the light-footed clapper rail) and determining if sediment augmentation is an effective sea level rise adaptation strategy for coastal salt marsh habitat along the California coast.

The scope of the project includes pre-construction monitoring to document the existing conditions on the site, followed by five years of annual monitoring of the physical and ecological responses of the salt marsh ecosystem to thin-layer sediment augmentation. It is the intent of this project to disseminate the results of the comprehensive monitoring program to interested Federal, State, and local agencies, coastal land managers, and other stakeholders to assist in further developing sea level rise adaptation strategies for coastal California, particularly for those salt marsh habitats that have no potential to migrate inland.

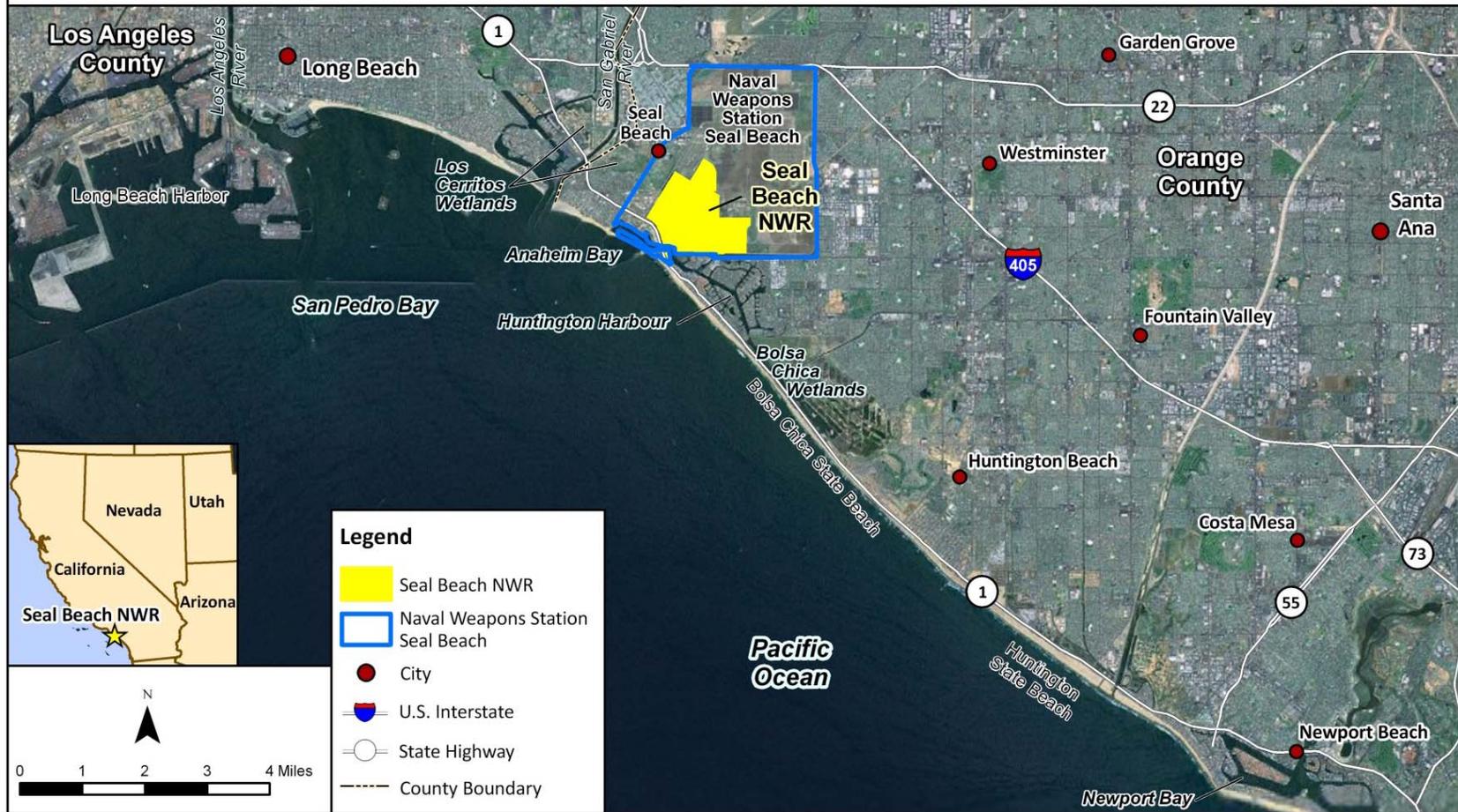
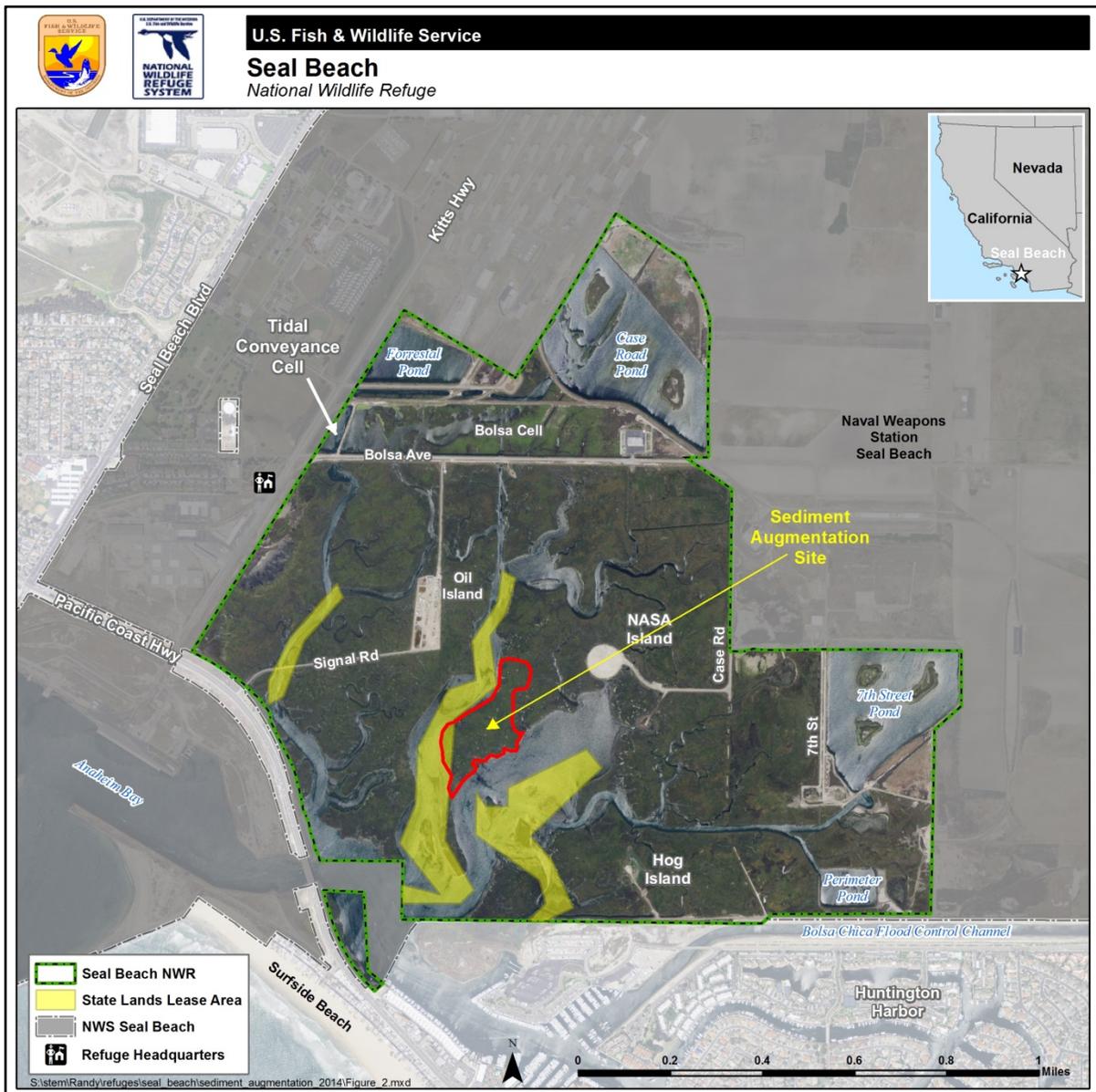


Figure 1. Vicinity Map



**Figure 2. Location of the Pilot Project Site**

## **Decision**

Following comprehensive review and analysis of the proposed action and the no action alternative, as presented in the draft IS/EA, and considering all public comments and our responses to them, the Service has determined that the analysis in the IS/EA is sufficient to support the selection of the proposed action for implementation.

The purposes of the proposed project are to improve habitat quality on the Seal Beach NWR for the endangered light-footed Ridgway's rail and to determine if sediment augmentation is an effective sea level rise adaptation strategy. More detailed information about the proposed action and its purpose and need is provided in Sections 1 and 2 of the Final IS/EA.

The proposed action alternative was selected because its implementation will help ensure that the purposes for which the Seal Beach National Wildlife Refuge was established will be achieved. In addition, the proposed action best addresses the goals and objectives included in the Seal Beach National Wildlife Refuge Comprehensive Conservation Plan (USFWS 2012), particularly those related to the management of the Refuge's population of light-footed Ridgway's rails and associated salt marsh habitat.

The need to address the effects of sea level rise on coastal habitats and listed and sensitive species was also considered in making this determination. As described in the National Fish, Wildlife and Plants Climate Adaptation Strategy (National Fish, Wildlife, and Plants Climate Adaptation Partnership 2012), steps must be taken to address the effects of climate change, including sea level rise, to help conserve ecosystems and make them more resilient. The only options for retaining the existing acreage of tidal wetlands is to either implement adaptive management strategies that will allow these wetlands to keep pace with sea level rise or ensure that these wetlands can migrate inland to adjacent lands that are undeveloped. In California, there is little opportunity for coastal wetlands to migrate inland, therefore, effective management actions must be evaluated that can allow these wetlands to keep pace with sea level rise.

The proposed action is consistent with the goals outlined in the Service's Strategic Plan for Responding to Accelerating Climate Change (USFWS 2010) and the National Fish, Wildlife and Plants Climate Adaptation Strategy (National Fish, Wildlife, and Plants Climate Adaptation Partnership 2012). It is also consistent with the State of California's Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2014).

Finally, the proposal to use dredge material for this beneficial use is consistent with the recommendations of the National Dredge Team and the conclusions of Dredged Material Management Action Agenda for the Next Decade (USEPA 2003) that "beneficial use must become a priority at all levels of management, funding must be increased for beneficial use projects and research, planning must be proactive, and there must be a recognition that dredged material is a valuable resource."

## **Alternatives Considered**

Following is a brief description of the two alternatives considered in the draft IS/EA. For a complete description of each alternative, see the Final IS/EA.

### **Proposed Action (Selected Alternative)**

Under the proposed action, 10,000 to 13,500 cubic yards [CY] of clean dredge material would be applied as a fairly uniform thin layer of sediment, about 8 to 10 inches (20.32 to 25.4 centimeters [cm]) deep, over approximately 10 acres of a 16-acre site situated within the Refuge's 565-acre intertidal salt marsh habitat. The sediment will come from a nearby maintenance dredging project to be conducted by Orange County Parks. Also proposed is the implementation of pre-sediment application monitoring to document the existing biological and physical conditions on the site and five years of post-sediment application monitoring. The results and lessons learned from this project will be disseminated to interested agencies and land managers in an effort to provide guidance necessary to implement this adaptation strategy elsewhere along the California coast.

### **No Action**

Under the no action alternative, no sediment augmentation would occur on the Seal Beach NWR. This alternative represents the baseline from which the "action" alternative was evaluated. The effects of subsidence and sea-level rise on the existing habitat and affected species, including the light-footed Ridgway's rail, would continue under the no action alternative. The dredge material that would have been placed on the project site from an adjacent maintenance dredging project would be disposed of at U.S. Environmental Protection Agency (USEPA)-approved LA-2 open ocean site, reused at eelgrass mitigation sites within Huntington Harbour or elsewhere, or used for fill at an upland landfill site or port confined disposal site.

## **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 scope of the project to avoid and minimize all potential adverse effects.

A more in-depth analysis of the potential affects to the environment is provided in the IS/EA. The analysis in the IS/EA tiers from the analysis of this proposal in the programmatic level EA prepared for the Seal Beach NWR CCP (USFWS 2012), and as such, the EA prepared for the CCP is incorporated by reference into the IS/EA. The programmatic EA for the Seal Beach CCP can be review downloaded at [http://www.fws.gov/refuge/Seal\\_Beach/what\\_we\\_do/planning.html](http://www.fws.gov/refuge/Seal_Beach/what_we_do/planning.html).

### **A. Air Quality**

Overview. Transport of sediment from the nearby dredge site and application of the sediment onto the pilot project site is expected to take between four to six weeks depending upon the application techniques that are used. These activities will result in the short-term generation of criteria pollutant and toxic air contaminants (TAC) emissions.

Potential sources of these emissions include the operation of motorboats and/or a small containment barge, a booster pump to transport and/or apply the slurried sediment onto the site, and vehicle trips by construction workers and site monitors.

Air Quality Standards. An estimate of total direct and indirect emissions generated by the implementation of the pilot project indicates that project implementation will not exceed the South Coast Air Quality Management District (SCAQMD) Rule 1901 Conformity Applicability Thresholds. In addition, this short-term project will generate emissions below regional and localized SCAQMD construction thresholds, and will result in no changes in existing land use and no increases in population or employment following project completion. As a result, the implementation of the proposed action will not conflict with any air quality management plan.

Exposure to Sensitive Receptors. Construction activities associated with the proposed project will be short in duration (four to six weeks) and will occur a sufficient distance from sensitive receptors that implementation of the pilot project is not anticipated to result in an elevated health risk to exposed persons. Further, the project will not create substantial pollutant concentrations of criteria pollutants. The potential for impacts to sensitive receptors as a result of project implementation are therefore considered less than significant.

Objectionable Odors. The application of dredged sediment onto the Refuge site will occur using a mix of sediment and water, which will dilute any odors generated by the sediment. In addition, the application site is not located in proximity to any sensitive receptors. As such, no impacts related to odor are anticipated.

## **B. Biological Resources**

Marsh Habitat. The proposed action has the potential to affect 16 acres of lower quality low salt marsh habitat on the Refuge. Within the 16 acres, approximately 10 acres will be modified through the application of 8 to 10 inches of sediment over the existing vegetation. The remaining six acres of vegetated salt marsh will provide a sediment trap for sediments that might flow from the 10-acre application site. This thin-layer of sediment will cover some but not all of the vegetation on the 10-acre site.

The Refuge currently supports approximately 565 acres of salt marsh vegetation and the proposed pilot project has the potential to temporarily modify approximately 2.8 percent of the total salt marsh habitat on the Refuge. Cordgrass is expected to grow up through the sediment and achieve the desired stem heights and density within two to five years of sediment augmentation. Additionally, regrowth and/or natural recruitment of other low marsh plant species and natural recruitment of invertebrates and other organisms is expected to occur within a similar timeframe. The quality of the habitat is expected to be better than pre-project conditions as a result of the increase in the marsh plain elevations. The improved habitat conditions will benefit the light-footed Ridgway's rail and other components of the marsh ecosystem.

If after five years, the condition of the salt marsh vegetation on the 10-acre pilot project site is not consistent with or of better quality than pre-project conditions, the following conservation measure will be implemented to avoid adverse effects to coastal salt marsh vegetation:

*A restoration plan will be developed and implemented within the project site to reestablish native salt marsh vegetation at a density and percent cover similar to pre-project site conditions. Site management and monitoring will continue until salt marsh vegetation has been restored to the site in accordance with the specifications of the restoration plan.*

Wildlife. Construction related disturbance on and adjacent to the pilot project site would occur over a period of four to six weeks. To avoid impacts to nesting birds, no construction will be permitted during the nesting season. Avian species, including the endangered light-footed Ridgway's rail and various shorebirds, some of which are identified by the Service as Birds of Conservation Concern, could be present on the site. Activities in the adjacent tidal channels associated with the transport and application of sediment has the potential to disturb the endangered eastern Pacific green turtle (*Chelonia mydas*) and various marine mammals. The conservation measures presented below have been incorporated into the scope of the project to avoid any potential take of listed species and to ensure that adverse effects to wildlife will be less than significant.

*A qualified biologist will be on site during construction to monitor for the presence of sensitive species and other wildlife. The biologist shall have the authority to halt construction when wildlife is observed within or near the project site. Work crews will be briefed on how to identify sea turtles and marine mammals that could occur in water areas affected by the implementation of the pilot project. The biological monitor will prepare incident reports of any observed sea turtle activity and shall provide such reports to National Marine Fisheries Service (NMFS) within 24 hours of an observation.*

*Any work vessels (e.g., containment barge, workboat) moving about the project site shall comply with a five-mile per hour speed limit. In the event of a collision between the containment barge or workboat and a marine mammal or sea turtle, the USFWS shall immediately contact the NMFS Southwest Regional Office's Stranding Coordinator, and submit a report to the NMFS within 24 hours. To reduce the potential for impacts to sea turtles, sediment transport and application within the Refuge shall only occur between November 1 and February 15, when water temperatures are lower.*

*To avoid impacts to light-footed Ridgway's rails and other avian species in the vicinity of the project site, sediment application shall not occur during the nesting season.*

*Additionally, the three artificial light-footed Ridgway's rail nesting platforms located within and adjacent to the project site shall be removed after the end of the breeding season (after September 15) preceding sediment application to minimize the presence of rails in the area.*

*Prior to the daily application of sediment onto the pilot project site, a qualified biologist shall survey the 16-acre site and adjacent areas for the presence of rails and other birds. If any are present, an air horn or cracker shells will be deployed to move the birds off the site prior to sediment application. If noise proves ineffective, physical presence may be used to haze birds to move to other parts of the Refuge. Also, monitoring shall continue throughout the day to discourage rails and other birds from moving into the project site, particularly during periods when sediment is not being sprayed, such as during breaks or when adjustments in the application process are being implemented.*

Eelgrass. The tidal channels located adjacent to the application site support eelgrass habitat. The movement of sediment from the site into the adjacent channels and/or increases in turbidity levels within these channels during and/or after sediment application could have an adverse effect on eelgrass. To minimize the potential for sediment to move off the site, a vegetated buffer will be maintained around the 10-acre application site, and the area will be monitored during sediment application. If necessary, additional measures will be implemented, such as the installation of silt fencing and/or the implementation of other forms of sediment control. To avoid, and if necessary, to adequately mitigate for, any significant adverse effects to eelgrass habitat, the conservation measures presented here have been incorporated into the scope of the project.

*A vegetated buffer shall be maintained around the 10-acre application site, and the buffer area shall be monitored during sediment application to ensure that any sediment moving off the pilot project site is being trapped within the vegetated buffer area. If monitoring indicates that the sediment has the potential to migrate from the marsh into the adjacent tidal channel, additional measures shall be implemented to minimize the loss of sediment from the site. Such measures could include, but are not limited to, installing silt fencing, silt curtains, or straw wattles along the edge of the site.*

*Eelgrass surveys shall be conducted within the tidal channels that abut the 16-acre pilot project site, as well as another reference site within the Refuge, during the active growth phase for the vegetation (typically March through October). The distribution, density, and relationship to depth contours of any eelgrass beds that may be impacted by project implementation shall be thoroughly mapped and mapping protocols shall be consistent with those outlined in the Southern California Eelgrass Mitigation Policy (SCEMP). The same surveys shall be conducted within 30 days of completing the sediment application process and then annually for two years following application.*

*If impacts to eelgrass from project implementation are identified, compliance with the SCEMP shall be initiated and monitoring of the mitigation area(s) and a suitable local reference site shall be implemented per the requirements of the SCEMP. Monitoring reports shall be filed with the resource agencies and the California Coastal Commission.*

### **C. Cultural Resources**

The Service's Regional Archaeologist/Historic Preservation Specialist evaluated the potential impact of the proposed project on cultural resources and determined that no impacts are anticipated. No further cultural resource identification effort is necessary for the project. In compliance with the terms of the Service's Programmatic Agreement with the State Historic Preservation Office (SHPO), the project will be reported to the SHPO in the Service's annual report that will be prepared and submitted at the end of fiscal year 2014. Because the existence of cultural resources can never be predicted with certainty, the following conservation measure has been incorporated into the scope of the project to ensure that potentially significant impacts resulting from the encounter of an archaeological resource will be avoided.

*In the event that cultural resources are discovered during any disturbance to subsurface material on the 16-acre pilot project site, the ground disturbing activity shall be halted, the Service's Regional Archaeologist and the Conservancy shall be notified, and additional consultation shall be initiated to ensure compliance with the National Historic Preservation Act and other applicable Federal regulations and policies. If any cultural resources are discovered on State lands during the implementation of this project, the USFWS and Conservancy shall also consult with the California State Lands Commission's Assistant Chief Counsel.*

### **D. Greenhouse Gas Emissions**

The delivery and application of up to 13,500 CY of dredged sediments from a nearby maintenance dredging site will result in the short-term generation of greenhouse gas (GHG) emissions, with the majority of the activities, and thus the majority of the GHG emissions, occurring over a period of four to six weeks. Total project-related construction emissions were calculated and then amortized over the life of the project to obtain total annual GHG emissions (CO<sub>2</sub>e) of less than 4 metric tons. The California Air Pollution Control Officers Association (CAPCOA) threshold is 900 metric tons annually. Consequently, the impact of GHG emissions generated from this project is considered less than significant. Therefore, no mitigation is proposed.

Once the sediment application process is completed, emissions from small boats used for monitoring could be generated for 48 hours over the course of a year, with monitoring proposed for at least five years. Monitoring will likely occur using a combination of motorized and non-motorized vessels. The use of some non-motorized vessels will reduce the total emissions. Overall, GHG emissions associated with the monitoring program will be less than significant.

The enhancement of coastal salt marsh vegetation, which is the intent of this project, will provide benefit by offsetting some of the construction-related GHG emissions through carbon sequestration. Studies indicate that marsh grasses and other macrophytes, microalgae on the mud surface, and phytoplankton are the three primary components of the natural salt marsh community that remove large amounts of CO<sub>2</sub> from the atmosphere and store the carbon in the marsh soils (Choi and Wang 2004, Brigham et al. 2006). Although the benefits will be small because the project is limited to 10 acres, if thin-layer sediment augmentation proves to be an effective sea level rise adaptation strategy for conserving coastal salt marshes threatened by inundation, there will be additional benefits of implementing thin-layer sediment augmentation in the future.

## **E. Hazards and Hazardous Materials**

Contamination in the Sunset/Huntington Harbour sediments proposed for use on the Refuge pilot project site was not severe enough to cause any statistically significant suspended particular phase toxicity (using mussel larvae, mysid shrimp and fish) or benthic toxicity (using amphipods and polychaete worms) (Kinnetic Laboratories, Inc. and Moffatt & Nichol 2014). There was statistically significant bioaccumulation of lead, DDTs, chlordane and PCBs in the test tissues. However, levels were determined to represent minimal threat to benthic organisms or species foraging in the marine benthic environment of the Refuge. Therefore, impacts from contaminants associated with placement of the dredged sediments to the benthic community or organisms dependent upon it at the Refuge site are not anticipated.

Although contaminated sites have been identified within Naval Weapons Station Seal Beach, these sites are not considered a threat to offsite locations (Southwest Division, Naval Facilities Engineering Command 1995), including the 16-acre pilot project site.

Project implementation requires the operation of boats and other motorized equipment within the tidal channels of the Refuge. Such operations have the potential to release hazardous materials such as gas and oil into the waterway due to spills or leaks related to the operation of the machinery. Requirements of appropriate local and State agencies for the implementation of best management practices (BMPs), the provision of spill kits on all vessels, and adherence to spill reporting requirements minimizes the potential for adverse effects to waterways as a result of the proposed operation. Because the project will comply with Federal, State, and local hazardous waste regulations, impacts related to the inadvertent release of hazardous materials into the waterways surrounding the project site will be less than significant, and no mitigation will be required.

## **F. Water Quality**

The pilot project will involve the spraying of 10,000 to 13,500 CY of sediment onto 10 acres of the 16-acre site located adjacent to two tidal channels in Anaheim Bay. As a result, the project has the potential to introduce sediment into the adjacent tidal channels. Turbidity levels in these adjacent waters will increase, at least temporarily, if sediments in the dredge slurry move off the site and into adjacent tidal channels.

Monitoring of sediment movement and turbidity levels will occur during the sediment application process and application methods will be adaptively managed to ensure that movement of sediment off the site is minimized. Following completion of the sediment application process, post-application monitoring will include evaluation of sediment retention on the site and turbidity levels in the adjacent tidal channels. Turbidity sensors will be deployed to measure suspended sediment concentrations in the water. Following sediment application, sediment retention in the treatment areas will be monitored using cryo-coring within subplots that have been pre-treated with a feldspar marker horizon or other accepted methods for monitoring sediment retention. The specific techniques are currently being evaluated in consultation with researchers from the U.S. Geological Survey (USGS), UCLA, and California State University Long Beach.

According to Ray (2007), based on experiences in Gulf Coast, spray disposal operations, can be modified to target specific sites and avoid sensitive areas. Cahoon and Cowan (1987, 1988) report that in their experience, water from the liquid slurry rapidly drains off, quickly leaving the deposited sediment without producing unusually high levels of turbidity. The sediment to be applied to the pilot project site consists of a mixture of silt, sand, and clay, which has a moderate potential for localized increases in turbidity should material move off this site. Because this practice has not been attempted on the Pacific Coast, it will be necessary to adaptively manage the application process to meet project design criteria, including minimizing the potential for the introduction of sediment into the tidal channels that abut the site.

To ensure that appropriate actions are implemented to reduce the potential for turbidity associated with transporting and applying sediment within the 16-acre pilot project site, mitigation measures, as presented below, have been incorporated into the scope of the project to reduce potential water quality impacts to a less-than-significant level.

*Prior to initiation of sediment transport and application to the pilot project site, the USFWS shall submit an application to the Santa Ana Regional Water Quality Control Board for coverage under a 401 Certification. The USFWS shall implement all conditions included in the 401 Certification, including the implementation of measures to reduce potential increases in sedimentation, turbidity, and other impacts associated with the transport and beneficial use of dredge material for habitat enhancement.*

*To reduce the potential for sediment to enter adjacent waterways, best management practices (BMPs) shall be implemented during all phases of the project. BMPs shall include providing approximately six acres of vegetated buffer around the application site; periodic inspection of the slurried sediment pipeline (if used); and monitoring for excessive turbidity near the transport pipeline or containment barge and associated sediment distribution apparatus (e.g., rainbow sprayer, open pipe, end-of-pipe baffle impingement). If a substantial leak is identified in the slurry pipeline, the affected pipeline segment shall be immediately repaired or replaced, or a silt curtain or similar measure shall be employed to capture and retain sediment at the source of the leak.*

*Monitoring of sediment movement and turbidity levels shall occur during and after sediment application. Movement of sediment on the site shall be adaptively managed until adequately compacted to ensure that movement of sediment off the site is minimized. Measures such as installation of silt fencing, a silt curtain, or straw wattles shall be installed if proposed vegetative buffers around the site cannot adequately maintain the sediment within the project boundary.*

Based on the results of the sediment characterization for the dredge material that will be applied to the pilot project site, the sediment chemistry will not result in the release of any chemical constituents into adjacent waters that would represent cause for concern (Kinnetic Laboratories, Inc. and Moffatt & Nichol 2014). Therefore, the sediments to be disposed of on the pilot project site will not represent a potentially significant impact to water quality with respect to any chemical constituents.

## **G. Noise**

Noise associated with the proposed pilot project will be generated by workboats, the flow of sediment from the application sprayer, and possibly a containment barge and booster pump. The noise will occur for a period of four to six weeks. However, this activity will occur more than 1,000 feet from the nearest dwelling unit or other sensitive receptor, therefore, residents will be unaffected by noise generated at the project site. The temporary increase in noise at the project site is considered less than significant, and no mitigation is required.

## **H. Cumulative Effects**

All potentially significant impacts related to the proposed action would be mitigated to below a level of significance through the implementation of specific measures that have been incorporated into the scope of the project. Specifically:

The generation of air pollutants, GHG emissions, and noise would be limited in terms of duration and total emissions or decibels generated. Therefore, the proposed action would not contribute to regionally significant cumulative impacts related to air quality, GHG emissions, or noise.

The project is intended to improve habitat quality within the pilot project site and includes measures to protect eelgrass present in the tidal channels that abut the pilot project. However, if the intended project outcomes are not achieved; the project includes measures to restore salt marsh and/or eelgrass habitat quality to pre-project conditions. As a result, this action would not contribute cumulatively to the loss of eelgrass or low salt marsh habitat along coastal California.

With respect to water quality, sediment application will be adaptively managed to ensure that sediment applied to the site does not migrate into adjacent tidal channels or increase turbidity levels in the waters surrounding the site. Mitigation measures have been incorporated into the scope of the project to ensure that no significant adverse

effects to water quality, either direct or cumulative, will result from project implementation.

Affects to cultural resources are not anticipated, as ground-disturbing activities if required would be limited to the installation of stakes to secure silt fencing, silt screen, straw wattles, and/or other barriers to keep sediment on the site. However, if cultural resources are discovered, procedures have been incorporated in the scope of the project to avoid impacts to such resources. No cumulative impacts to cultural resources are therefore anticipated.

## **Public Review**

A notice of availability of the draft IS/EA and accompanying draft Mitigation Negative Declaration (MND) prepared for the project was sent to more than 35 parties, submitted to the State Clearinghouse, and published as a legal notice in the Orange County Register. The draft IS/EA and draft MND was available for public comment for 32 calendar days. Public review began on August 8, 2014 and comments were accepted until 5 p.m. on September 8, 2014. Written comments were to be provided to Evyan Borgnis, Conservancy Project Manager.

During the public comment period, three comments related to the draft IS/EA and draft Mitigated Negative Declaration were received. Responses to these comments are included as Attachment B of the Final IS/EA. Changes to the main text of the draft IS/EA made in response to comments received are underlined in the Final IS/EA. Those who provided comments have been sent a compact disc (CD) containing the FONSI, Final IS/EA, and draft MND. Other interested parties can obtain a CD by contacting Victoria Touchstone, San Diego NWR Complex, at [Victoria\\_Touchstone@fws.gov](mailto:Victoria_Touchstone@fws.gov).

The FONSI, Final IS/EA, and Final MND are available for downloading at:

### **California Coastal Conservancy Website**

[www.scc.ca.gov](http://www.scc.ca.gov), then click Public Notices under the Quick Links box in the upper left hand corner of the home page.

### **Seal Beach National Wildlife Refuge Website**

[www.fws.gov/refuge/Seal\\_Beach/what\\_we\\_do/resource\\_management.html](http://www.fws.gov/refuge/Seal_Beach/what_we_do/resource_management.html)

During the development of the project design, the Service held a meeting with agency representatives to describe the proposed project and discuss the permitting process. A subsequent meeting was held for researchers, land managers, and other stakeholders to discuss the project proposal and seek input on project implementation and monitoring.

## Other Statutory Compliance Requirements

Compliance with all statutory requirements will be achieved and approval of all required permits will be obtained prior to sediment application. Required actions and permits include:

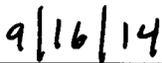
- California State Coastal Conservancy - Approval of Grant Funds
- U.S. Fish and Wildlife Service – Project Implementation, ESA Section 7 Compliance
- NOAA, National Marine Fisheries Service – Essential Fish Habitat Consultation, ESA Section 7 Compliance
- U.S. Navy – Concurrence on Project Implementation
- U.S. Army Corps of Engineers - Section 404, Nationwide Permit 27
- Regional Water Quality Control Board - 401 Certification
- California Coastal Commission - Coastal Consistency Determination

## Conclusions

Based on review and evaluation of the information contained in the supporting references, it is my determination that implementing 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, 1080 Gunpowder Point Drive, Chula Vista, CA 91910 (telephone 619/476-9150 extension 103). These documents are available for public inspection. Interested and affected parties are being notified of our decision through a press release and website update.

  
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Andrew Yuen  
Project Leader  
San Diego National Wildlife Refuge Complex

  
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Date

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