

CHAPTER 1 INTRODUCTION

1.1 PROJECT OVERVIEW

The Otay River Estuary Restoration Project (ORERP or proposed action) is a partnership between the U.S. Fish and Wildlife Service (Service) and Poseidon Resources (Poseidon) to create, restore, and enhance coastal wetlands to benefit native fish, wildlife, and plant species, and to provide habitat for migratory seabirds and shorebirds and salt marsh–dependent species within the South San Diego Bay Unit of the San Diego Bay National Wildlife Refuge (NWR). The ORERP is intended to implement the habitat restoration objectives of the San Diego Bay NWR Comprehensive Conservation Plan (CCP) (USFWS 2006), and fulfill the applicable terms and conditions of the permits issued to Poseidon by the California Coastal Commission (Commission) and San Diego Regional Water Quality Control Board (Regional Board) for the Carlsbad Desalination Plant Project. The partnership between the Service and Poseidon provides public benefits by restoring coastal wetlands and wildlife habitats within the San Diego Bay NWR, and allows Poseidon to meet its mitigation requirements for the Carlsbad Desalination Plant Project.

The proposed action is located on two non-contiguous sites within the South San Diego Bay Unit of the San Diego Bay NWR (Figure 1-1 and Figure 1-2). The first restoration site, referred to herein as the Otay River Floodplain Site, is an approximately 33.51-acre area of primarily disturbed uplands within the Otay River floodplain that would be restored to estuarine, intertidal, and upland habitats (see Figure 1-3). The second restoration site, referred to herein as the Pond 15 Site, is a 90.90-acre active solar salt pond (currently used for commercial salt production from seawater evaporation) that would be restored to subtidal and intertidal habitats (see Figure 1-4). The proposed action would include a number of project features necessary to facilitate restoration of the Otay River Floodplain Site and Pond 15 Site, which are described in detail in Chapter 2, Alternatives, of this Environmental Impact Statement (EIS). The associated project features would occur in various locations, affecting a total of 40.9 acres. The total acreage for the proposed action as a whole, consisting of the Otay River Floodplain Site, the Pond 15 Site, and all associated project features, would be approximately 165.3 acres.

This draft EIS analyzes the potential effects to the environmental of implementing each of the action alternatives and the no action alternative. The analysis is intended to tier from the programmatic EIS and Record of Decision prepared for the San Diego Bay NWR CCP (USFWS 2006; 71 FR 64552–64553). The programmatic EIS for the CCP evaluated alternatives for restoring the Otay River floodplain, and restoring and enhancing the San Diego Bay NWR’s existing solar salt ponds. The Final EIS for the San Diego Bay NWR CCP is incorporated by reference into this document.

This Draft EIS for the ORERP was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 U.S.C. Section 4341 et seq.) and in conformance with the

Council on Environmental Quality’s NEPA guidelines. The Service is the federal lead agency under NEPA. The U.S. Army Corps of Engineers, based on its jurisdiction by law and special expertise pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), has agreed to participate as a cooperating agency, pursuant to Title 40 of the Code of Federal Regulations, Section 1501.6, on the preparation of the ORERP EIS.

1.2 PROJECT LOCATION

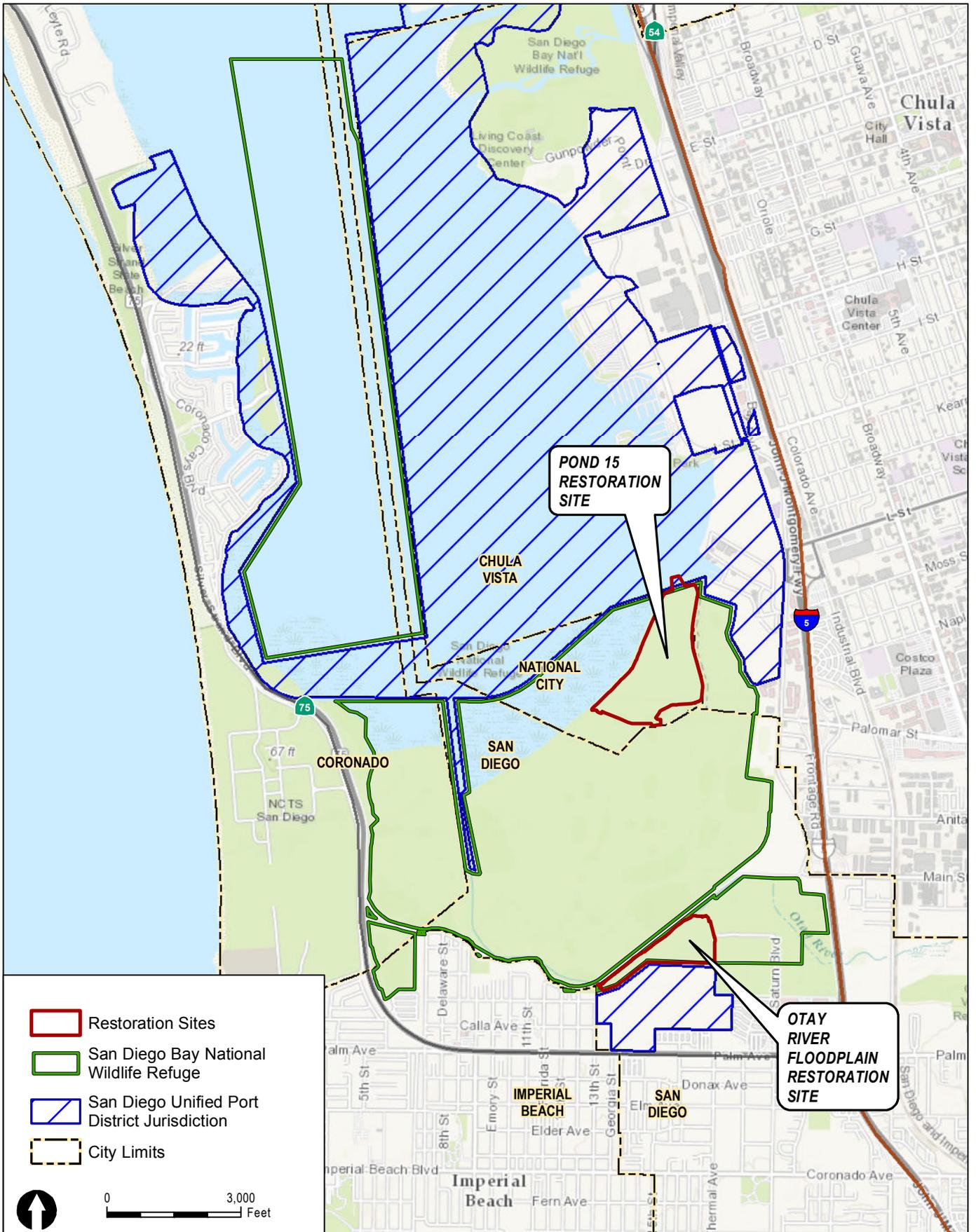
The ORERP site is located at the south end of San Diego Bay, in San Diego County, California, within the boundaries of the South San Diego Bay Unit of the San Diego Bay NWR, and is composed of two separate sites: the Otay River Floodplain Site and the Pond 15 Site. Both the Otay River Floodplain Site west of Nestor Creek and the Pond 15 Site are located on sovereign land held by the California State Lands Commission for the benefit of the people of the state and leased to the Service for management as part of the San Diego Bay NWR. The Otay River Floodplain Site east of Nestor Creek is owned by the Service. The Otay River Floodplain Site is situated within the limits of the City of San Diego, and the Pond 15 Site is within the limits of the City of National City. The City of Chula Vista is east of the Pond 15 Site. Directly to the south of the Otay River Floodplain Site and to the south and east of the Pond 15 Site are lands included within the City of San Diego. The City of Imperial Beach is located directly southwest of the Otay River Floodplain Site.

The approximately 33.51-acre Otay River Floodplain Site is located west of Interstate 5 between Main Street to the north and Palm Avenue to the south (refer to Figure 1-1, Regional Map, and Figure 1-2, Vicinity Map). The 90.90-acre Pond 15 Site is located in the northeast portion of the South San Diego Bay Unit of the San Diego Bay NWR, northwest of the intersection of Bay Boulevard and Palomar Street in Chula Vista (refer to Figures 1-1 and 1-2).

1.3 PROJECT BACKGROUND

San Diego Bay National Wildlife Refuge Comprehensive Conservation Plan and Environmental Impact Statement

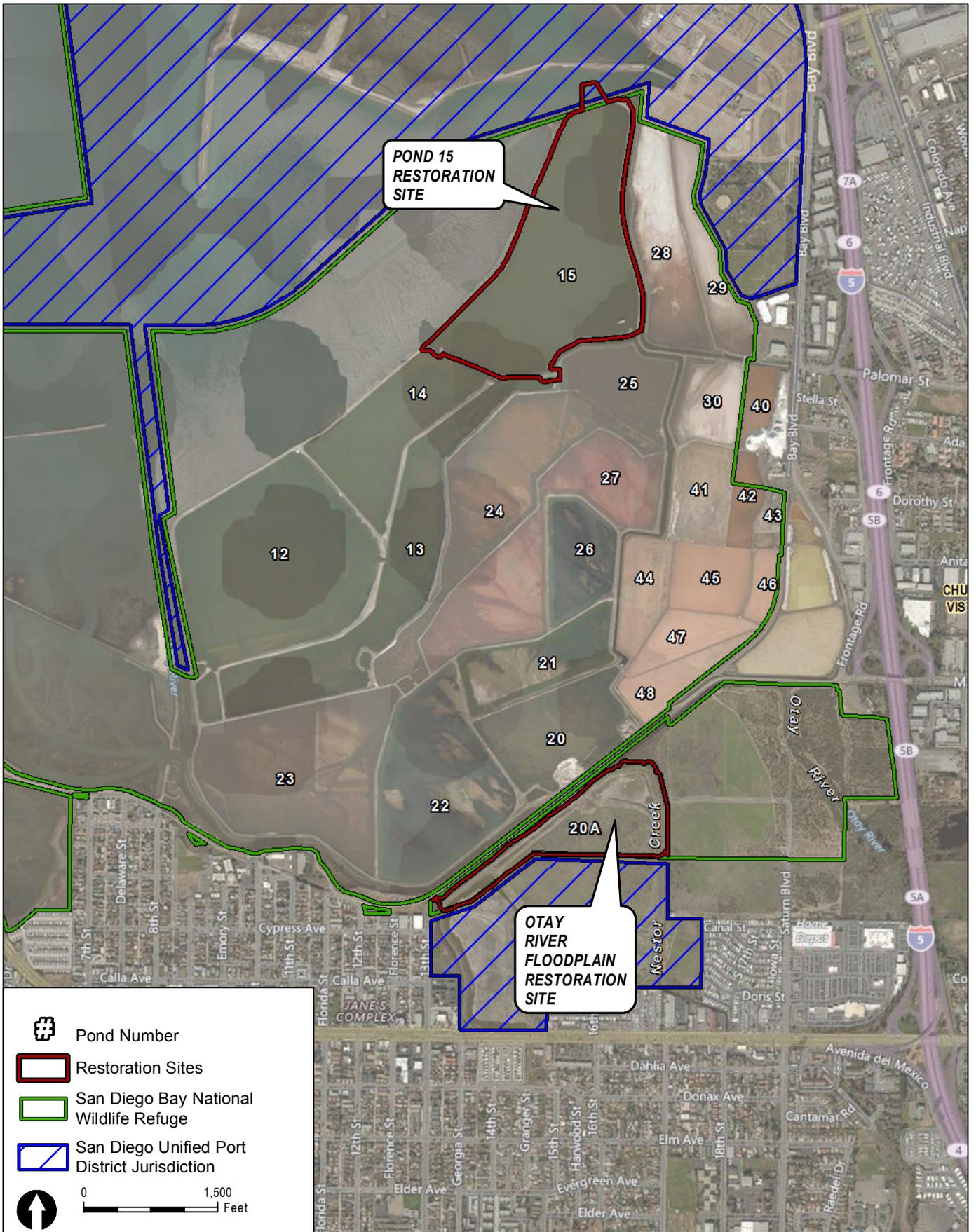
In 2006, the Service completed the San Diego Bay NWR CCP, associated Final EIS, and accompanying Record of Decision (USFWS 2006; 71 FR 64552–64553). The CCP guides the management of the San Diego Bay NWR over a 15-year period, and describes, among other things, the wildlife and habitat management goals and objectives for the Sweetwater Marsh and South San Diego Bay Units of the San Diego Bay NWR. For the purpose of this ORERP EIS, only the habitat restoration elements for the South San Diego Bay Unit as described in the CCP (USFWS 2006) are applicable and discussed (refer to Section 1.5.2 of this EIS for a list of these goals).



BASE SOURCE: ESRI

FIGURE 1-1
Regional Map

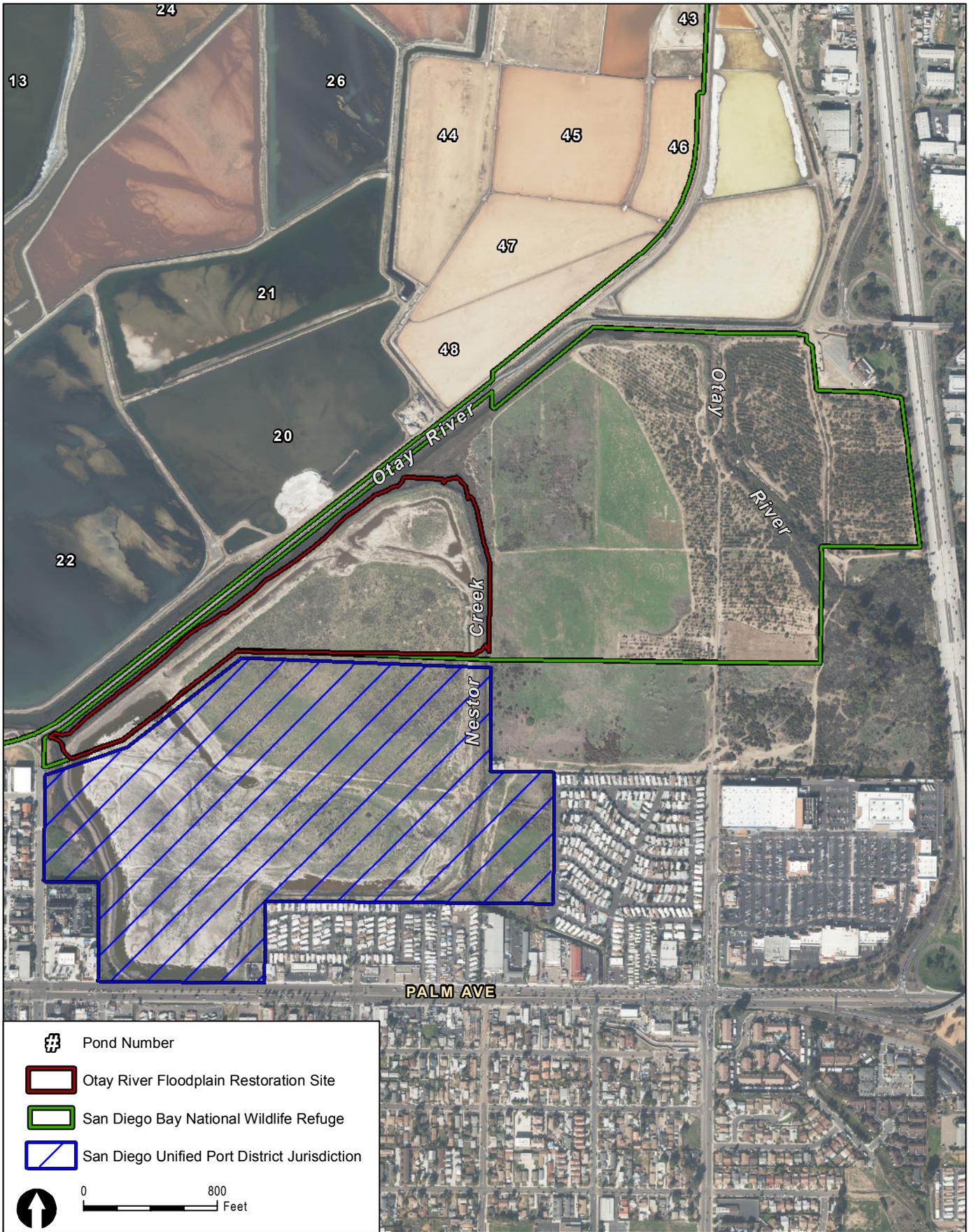
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SOURCE: BING MAPPING SERVICE

FIGURE 1-2
Restoration Sites Vicinity Map

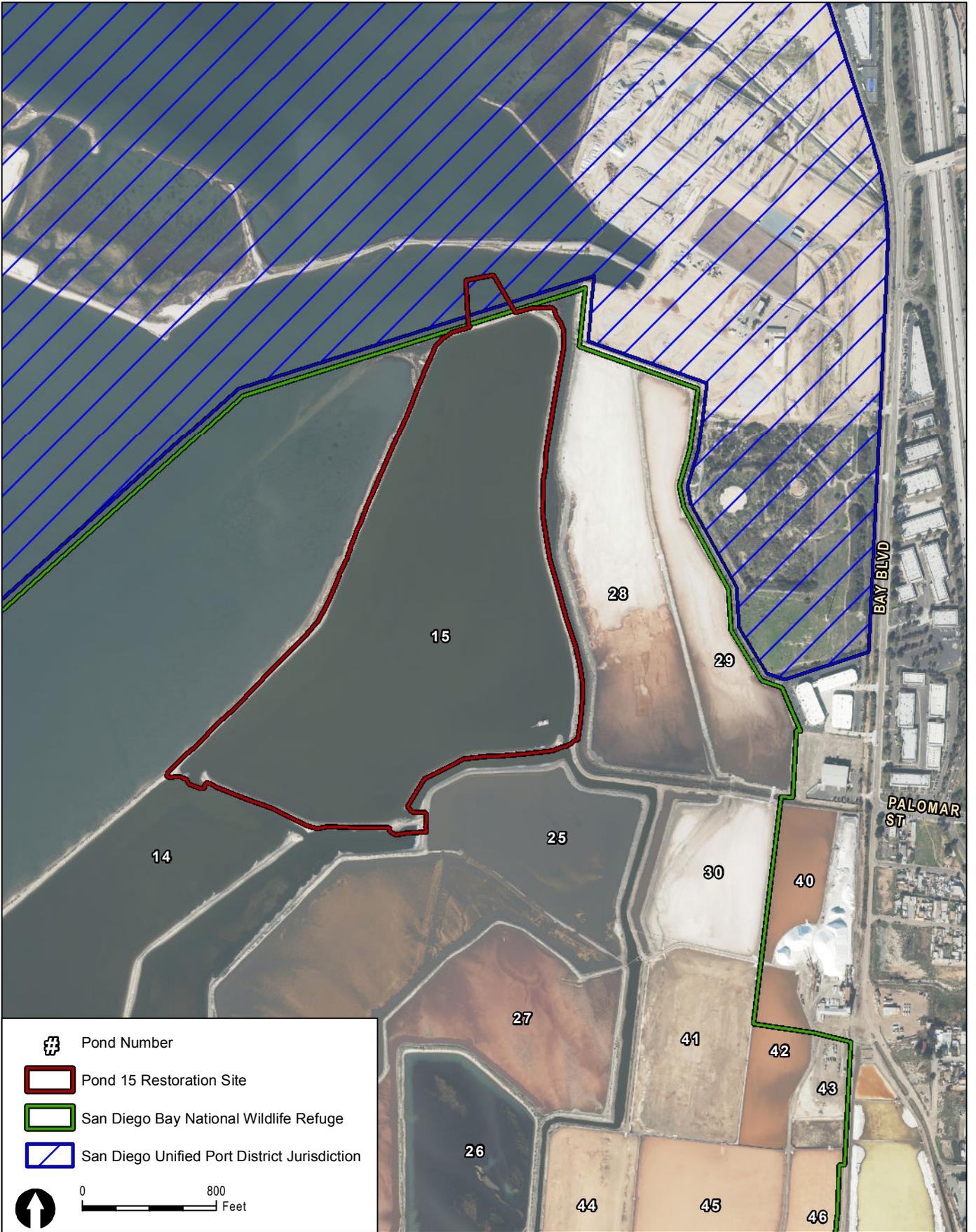
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SOURCE: BING MAPPING SERVICE

FIGURE 1-3
Otay River Floodplain Restoration Site Vicinity Map

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SOURCE: BING MAPPING SERVICE

FIGURE 1-4
Pond 15 Restoration Site Vicinity Map

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The CCP (USFWS 2006) evaluated the no action alternative and three action alternatives for the South San Diego Bay Unit. The CCP also evaluated two restoration options for the Otay River Floodplain Site. Each alternative included a phased approach to restoration, such that the proposals of the previous alternative (i.e., Alternative C) were included and expanded into the next alternative (i.e., Alternative D). This approach allows the Service to implement individual elements from each alternative based on available funding and project phasing.

The restoration of estuarine, salt marsh, and upland terrestrial habitats in the Otay River Floodplain Site is similar to the Alternative C – Otay River Floodplain Restoration Option 2–Expanded Tidal Wetlands, described in the CCP (USFWS 2006). In addition, the riparian woodland restoration portion of Option 2–Expanded Tidal Wetlands is presently being implemented by the San Diego Bay NWR in partnership with River Partners, a non-governmental organization working with the Service to restore between 50 and 65 acres of riparian habitat directly east of the ORERP site. Similar to Alternative C – Option 2–Restored Primary Ponds as outlined in the CCP (USFWS 2006), under the ORERP, tidal influence would be restored in the Pond 15 Site to support the restoration of intertidal salt marsh habitat. The levees surrounding the Pond 15 Site would be widened and recontoured to gently slope down from the levee top into the area of restored salt marsh habitat. The water circulation system for the existing solar salt evaporation process would be reconfigured to facilitate the continued brine water management leading to the commercial production of salt within the remaining salt ponds, exclusive of the Pond 15 Site.

Marine Life Mitigation Plan for the Carlsbad Desalination Plant

On November 15, 2007, the Commission approved a Coastal Development Permit (CDP) (CDP No. E-06-013) for Poseidon’s proposal to construct and operate a desalination plant in the City of Carlsbad, San Diego County, California. As part of that approval, the Commission required Poseidon, through Special Condition 8, to submit for additional Commission review and approval, a Marine Life Mitigation Plan (MLMP) to address the impacts to be caused by the Carlsbad Desalination Plant’s use of estuarine water and its entrainment and impingement of marine organisms. The MLMP was conditionally approved by the Commission on August 6, 2008 (California Coastal Commission 2008). The Commission’s requested revisions were incorporated, and the MLMP was finalized on November 21, 2008 (Poseidon 2008). On May 9, 2009, the Regional Board added a fish productivity requirement and approved the MLMP as a condition of the National Pollution Discharge Elimination System permit required for the Carlsbad Desalination Plant, as incorporated within the March 27, 2009, Minimization Plan. As a condition of its approval, the Regional Board required that mitigation occur within San Diego County unless all other opportunities for restoration within San Diego County proved to be infeasible. This approval is outlined within Order No. R9-2009-0038 (RWQCB 2009). In 2009, based on a determination by the Regional Board and the Commission that Poseidon had

incorrectly calculated expected impingement from its proposed open ocean intakes, Poseidon was required to increase the number of restored acres from 55.4 to 66.4 to provide 11.0 additional acres.

To offset the potential impingement and entrainment impacts from the Carlsbad Desalination Plant, the MLMP required creation, enhancement, or restoration of aquatic and wetland habitat, and ensured long-term performance, monitoring, and protection of the approved mitigation measures in a manner consistent with the California Coastal Act Sections 30230 and 30231. Specifically, the MLMP and associated actions described above required Poseidon to submit a proposed mitigation site and preliminary restoration plan that would achieve the minimum standards and incorporate as many as feasible of the objectives set forth by the Commission as presented below.

- **Minimum Standards**

- Location within Southern California Bight (the curved coastline of Southern California from Point Conception to the Mexican border);
- Potential for restoration as tidal wetland, with extensive intertidal and subtidal areas;
- Creates or substantially restores a minimum of 37.0 acres and up to 55.4 acres of habitat similar to the affected habitats in Agua Hedionda Lagoon (to offset the potential impingement and entrainment impacts from the Carlsbad Desalination Plant), excluding buffer zone and upland habitat area;
- Provides a buffer zone of a size adequate to ensure protection of wetland values, and at least 100 feet wide, as measured from the upland edge of the transition area.
- Any existing site contamination problems would be controlled or remediated and would not hinder restoration;
- Site preservation is guaranteed in perpetuity (through appropriate public agency or nonprofit ownership, or other means approved by the Executive Director), to protect against future degradation or incompatible land use;
- Feasible methods are available to protect the long-term wetland values on the site(s), in perpetuity;
- Does not result in a net loss of existing wetlands; and
- Does not result in a significant impact on endangered animal species or a significant unmitigated impact on endangered plant species.

- **Objectives**

- Provides maximum overall ecosystem benefits, e.g., maximum upland buffer, enhancement of downstream fish values, provides regionally scarce habitat, potential for local ecosystem diversity;
- Provides substantial fish habitat compatible with other wetland values at the site(s);
- Provides a buffer zone of an average of at least 300 feet wide, and not less than 100 feet wide, as measured from the upland edge of the transition area;
- Provides maximum upland habitat areas (in addition to buffer zones);
- Restoration involves minimum significant impacts on existing functioning wetlands and other sensitive habitats;
- Site selection and restoration plan reflect a consideration of site specific and regional wetland restoration goals;
- Restoration design is that most likely to produce and support wetland-dependent resources;
- Provides rare or endangered species habitat;
- Provides for restoration of reproductively isolated populations of native California species;
- Results in an increase in the aggregate acreage of wetland in the Southern California Bight;
- Requires minimum maintenance;
- Restoration project can be accomplished in a reasonably timely fashion; and
- Site(s) in proximity to the Carlsbad Desalination Plant.

In January 2010, Poseidon presented a comparison study to Commission staff, a Scientific Advisory Panel formed by Commission staff to provide scientific expertise to the Commission, and representatives from other federal and state agencies about the Southern California Bight based on the MLMP's objectives. The study concluded that the Otay River Floodplain Site was the most suitable mitigation site to fulfill the requirements, objectives, and restrictions outlined in the MLMP. Commission staff and members of the Scientific Advisory Panel reviewed Poseidon's analysis and concurred that the Otay River Floodplain Site was likely to meet the MLMP's requirements and objectives.

In October 2010, the Commission requested that the comparison study be expanded to include additional northern San Diego County sites that are located closer to the source of project impacts. These included seven of the original 11 sites designated in August 2008 and one additional site (Loma Alta Lagoon). The expanded comparison study evaluated 15 sites in the Southern California Bight based on the MLMP's objectives. Thirteen sites were eliminated from consideration because they did not meet MLMP minimum threshold requirements specifying

mitigation type, mitigation size, site preservation, or mitigation timeliness. The remaining sites, the Otay River floodplain and Tijuana Estuary, were evaluated in full. Poseidon concluded that the Otay River Floodplain Site allowed for a greater degree of certainty for successful mitigation. On February 9, 2011, the Commission unanimously approved the Otay River Floodplain Site and preliminary restoration plan (California Coastal Commission 2011). The Otay River Floodplain Site was approved by the Regional Board on March 9, 2011 (RWQCB 2011). The Service and Poseidon entered into a Memorandum of Understanding to establish a partnership to facilitate restoration of property within the San Diego Bay NWR consistent with the CCP and Poseidon's Commission permit requirements.

Since November 2011, the Service has worked with Poseidon's project team in conjunction with staff from the Commission, Regional Board, Port of San Diego, California Department of Fish and Wildlife, California State Coastal Conservancy, U.S. Army Corps of Engineers, and the Commission's Scientific Advisory Panel on potential design alternatives to the originally proposed preliminary restoration plan. Collectively, this collaborative relationship is known as the "MLMP Workgroup." The MLMP Workgroup reviewed site opportunities and constraints, and evaluated restoration project design alternatives prior to finalizing the ORERP for the environmental review process. Subsequently, Poseidon developed preliminary restoration alternatives that met Commission requirements within the MLMP for the Otay River Floodplain Site. Each concept included subtidal; intertidal mudflat; intertidal low, mid-, and high salt marsh habitats; a wetland/upland transitional zone; and a buffer zone on the eastern and southern portions of the Otay River Floodplain Site. The alternatives differed in the specific acreage of each wetland zone and the manner in which these zones were laid out.

The results of the evaluation indicated that an estimated 750,000 to 1,000,000 cubic yards of soil would need to be disposed of during excavation of the Otay River Floodplain Site. This excavated soil could be used, in part, to support the Service's plans to restore a portion of the salt ponds within the San Diego Bay NWR to the north of the Otay River Floodplain Site. The soil could help to achieve target elevation contours within the Pond 15 Site to restore intertidal wetland habitat that would transition from subtidal elevations up to elevations suitable to support emergent salt marsh vegetation. The MLMP Workgroup, therefore, refined two alternatives in the preliminary restoration plan for the ORERP to allow for the excavated soils to be used to establish tidal salt marsh at the Pond 15 Site (see Figure 1-2). In addition to meeting the goals of the MLMP, evaluation of alternatives included analysis of the potential to make the San Diego Bay NWR more resilient to impending sea-level rise.

In coordination with the MLMP Workgroup, Poseidon conducted several site-specific studies to aid in the development of restoration alternatives. Based on these studies, a revised mitigation site and preliminary restoration plan were proposed. The revised mitigation site would encompass two restoration areas, the Otay River Floodplain Site and the Pond 15 Site, located in

the southeast corner of the South San Diego Bay Unit of the San Diego Bay NWR. The revised preliminary restoration plan would decrease the mitigation footprint of the Otay River Floodplain Site to the area west of Nestor Creek, avoiding potential impacts associated with cultural resources and contaminated soils that were identified during these preliminary studies, and expanding the mitigation area footprint to incorporate the Pond 15 Site. Poseidon would receive approximately 70% of the required wetland mitigation credit from the Pond 15 Site and approximately 30% from the Otay River Floodplain Site.

Under these revised alternatives, the MLMP requirements and objectives would be consistent with the goals and objectives identified in the CCP for the Otay River Floodplain Site and the Pond 15 Site. As a result, on September 14, 2012, Poseidon submitted a request to Commission staff for an extension of the November 3, 2012, deadline to submit a CDP application for the restoration work so that the integrated restoration project identified by the Service could be analyzed and included in the CDP application. The Commission's Scientific Advisory Panel agreed that the potential benefits from the conjunction of the two sites were substantial enough to justify the time extension request. The Commission's Executive Director granted an 18-month extension on October 15, 2012, with a new date to submit the CDP application by May 3, 2014. On December 11, 2013, the Commission approved the proposed modification to the Otay River Floodplain Site and preliminary restoration plan submitted by Poseidon, in compliance with the MLMP, approved on August 6, 2008, in accordance with Special Condition 8 of CDP No. E-06-013. The CDP application was submitted to the Commission on May 5, 2014.

1.4 PURPOSE AND NEED FOR THE ACTION

1.4.1 Need for the Action

As described in the CCP, prior to the 1900s, San Diego Bay was a fertile, shallow, flat-bottomed bay surrounded by extensive mudflats and salt marshes. However, as a result of historical dredging and filling implemented to accommodate ship movement and coastal development, only 22% of San Diego Bay's original salt marsh habitat and 8% of its original intertidal habitat remained prior to 2010. Additionally, the watersheds that flow into San Diego Bay now exist in highly altered conditions because of the construction of dams in the upper watershed, installation of hardscape and flood-control channels throughout the watershed, and the presence of continual low-level flows from urban runoff of imported water. The natural coastal habitats that remain provide habitat within the San Diego Bay NWR for three federally listed endangered species: light-footed Ridgway's rail (*Rallus obsoletus levipes*), California least tern (*Sternula antillarum browni*), and salt marsh bird's-beak (*Chloropyron maritimum*). They also provide habitat for three species listed as threatened—western snowy plover (Pacific Coast population Distinct Population Segment) (*Charadrius nivosus nivosus*), East Pacific green turtle (*Chelonia mydas*), and California gnatcatcher (*Poliophtila californica californica*)—and one state-listed endangered

species, Belding's Savannah sparrow (*Passerculus sandwichensis beldingi*). Collectively, San Diego Bay's open waters, tidal mudflats, salt marsh habitat, and adjoining salt ponds provide resting, feeding, and nesting habitat for hundreds of thousands of migratory shorebirds, colonial seabirds, and wintering waterfowl. San Diego Bay contributes more protected, shallow bay habitats to the Pacific Flyway waterbird populations than any other bay or estuary along the 180-mile coastal region of Southern California (USFWS 2006).

The portions of the South San Diego Bay Unit of the San Diego Bay NWR where the proposed action would occur originally consisted of a mix of native wetland and upland habitat. Today, the site consists of a commercial solar salt operation to the south and east of the Otay River channel, and habitat disturbed by past solar salt production activities to the south of the Otay River channel and west of Nestor Creek. Although the south end of San Diego Bay was spared from extensive dredging, it has experienced loss of natural habitats due to the construction of solar salt ponds, as well as other industrial, agricultural, and municipal activities (USFWS 2006).

1.4.2 Purpose and Objectives

The purpose of the ORERP is to create, restore, and enhance coastal wetlands to benefit native fish, wildlife, and plant species, and to provide habitat for migratory shorebirds and other salt marsh-dependent species within the South San Diego Bay Unit of the San Diego Bay NWR, consistent with the goals and objectives of the CCP (USFWS 2006) and the applicable terms and conditions of the permits issued for the Carlsbad Desalination Plant Project. The objectives of the ORERP are as follows:

- **Objective 1.** Restore native habitats in the Otay River Floodplain Site: Restore approximately 30 acres of the Otay River Floodplain Site to a mix of tidally influenced wetlands.
- **Objective 2.** Restore tidal wetlands in a commercial solar salt pond: Restore approximately 85 acres of the Pond 15 Site to tidal circulation to San Diego Bay.
- **Objective 3.** Enhance seabird and shorebird nesting and foraging opportunities: Increase the area of suitable nesting and foraging habitat for ground nesting seabirds and shorebirds by providing expanded and enhanced habitat areas on the levees that surround the restored tidal wetlands within Pond 15.
- **Objective 4.** Restore light-footed Ridgway's rail habitat: Develop restoration plans for the salt ponds and Otay River Floodplain Site that take into consideration the habitat needs of the light-footed Ridgway's rail. Restore cordgrass-dominated salt marsh within the Otay River Floodplain Site and Pond 15 Site.
- **Objective 5.** Implement MLMP Requirements: Create or substantially restore tidal wetland habitat in the San Diego region at an available site that is protected against future

degradation at a minimum of 66.4 acres of mitigation wetlands at a maximum of two sites and fish productivity of at least 1,717.5 kilograms per year.

Monitor and maintain the project site in compliance with the MLMP over the full operating life of the Carlsbad Desalination Plant. Once Poseidon’s mitigation duties are fulfilled, the site will serve as habitat to sensitive species within the San Diego Bay NWR and will be managed and maintained in accordance with the CCP.

1.5 PROJECT RELATIONSHIP TO LAWS, REGULATIONS, EXECUTIVE ORDERS, AND REQUIRED PERMITS

1.5.1 Federal Laws, Regulations, and Executive Orders

The following authorities, which apply to the proposed action, were considered in preparing this EIS for the ORERP:

- National Wildlife Refuge Administration Act, as amended (16 U.S.C. 668(dd) et seq.)
- National Wildlife Refuge System Improvement Act of 1997 (Public Law (PL) 105-57)
- National Environmental Policy Act of 1969 (42 U.S.C. 4331; PL 99-160)
- Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.)
- Fish and Wildlife Coordination Act of 1932, as amended
- Migratory Bird Treaty Act, as amended (16 U.S.C. 703 et seq.)
- Fishery Conservation and Management Act of 1976 (also referred to as the Magnuson-Stevens Fishery Conservation and Management Act), as amended (16 U.S.C. 1801–1882; 90 Stat. 331)
- Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451–1464, Chapter 33; PL 92-583, 86 Stat. 1280)
- Antiquities Act of 1906 (16 U.S.C. 431–433)
- Curation of Federally Owned and Administered Archaeological Collections; Antiquities Act of 1906 (36 Code of Federal Regulations 79)
- National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.)
- Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469–469c; PL 93-29)
- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa–470mm; PL 96-95; 93 Stat. 722)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 et seq.; PL 101-601)
- Clean Air Act, as amended (42 U.S.C. 7401 et seq.)

- Federal Water Pollution Act of 1948, as amended (Clean Water Act) (33 U.S.C. 1251–1376; Chapter 758; PL 845, 62 Stat. 1155)
- Rivers and Harbors Appropriation Act of 1899 (Rivers and Harbors Act) (33 U.S.C. 403; Chapter 425, March 3, 1899; 30 Stat. 1151)
- Executive Order 12372 (July 14, 1982), Intergovernmental Review of Federal Program
- Executive Order 13186 (January 10, 2001), Responsibilities of Federal Agencies to Protect Migratory Birds
- Executive Order 11990 (May 24, 1977), Protection of Wetlands
- Executive Order 11988 (May 24, 1977), Floodplain Management
- Executive Order 11593 (May 13, 1971), Protection and Enhancement of the Cultural Environment
- Executive Order 13007 (May 24, 1996), Indian Sacred Sites
- Executive Order 13175 (November 6, 2000), Consultation and Coordination with Indian Tribal Governments
- Executive Order 12898 (February 11, 1994), Environmental Justice

1.5.2 Federal Management Plans

Implementation of the ORERP, which would occur within the boundaries of the South San Diego Bay Unit of the San Diego Bay NWR, must be consistent with San Diego Bay NWR purposes and the goals and objectives presented in the San Diego Bay NWR CCP (USFWS 2006). The following goals for the South San Diego Bay Unit as stated in the San Diego Bay NWR CCP also apply to all of the alternatives evaluated for the ORERP:

- **Goal 1.** Protect, manage, enhance, and restore open water, coastal wetlands, and native upland habitat to benefit the native fish, wildlife, and plant species supported within the South San Diego Bay Unit.
- **Goal 2.** Support recovery and protection efforts for the federally and state-listed threatened and endangered species and species of concern that occur within the South San Diego Bay Unit.
- **Goal 3.** Provide high-quality foraging, resting, and breeding habitat for colonial nesting seabirds, migratory shorebirds and waterfowl, and salt marsh-dependent species.
- **Goal 4.** Provide opportunities for compatible wildlife-dependent recreation and interpretation that foster public appreciation of the unique natural and cultural heritage of South San Diego Bay.

1.5.3 State Laws, Regulations, and Management Plans

The following state permits and approvals are required:

- **California Coastal Commission** – A CDP for the proposed action is required. In addition to consistency with the California Coastal Act, the CDP would also analyze the proposed action’s consistency with the requirements, objectives, and restrictions in the MLMP. In accordance with the California Environmental Quality Act (CEQA), the CDP process is exempt from the requirement of preparing an Environmental Impact Report. The Commission’s staff report and findings related to the CDP application for the proposed action will serve as the environmental analysis document prepared under the Commission’s certified regulatory program. In addition, Appendix N of this EIS provides an analysis of the consistency of the ORERP with the specific provisions of the California Coastal Act. This will enable the Regional Board to analyze the proposed action for consistency with applicable policies.
- **San Diego Regional Water Quality Control Board** – A Clean Water Act Section 401 Water Quality Certification from the Regional Board is required. A construction dewatering permit may also be required once the construction method has been finalized.
- **San Diego County Air Pollution Control Board** – Compliance with Rule 1501 of the Air Pollution Control District’s Rules and Regulations would be required.

1.5.4 Required Permits

The ORERP is a joint effort between the Service and Poseidon. The following permits and approvals will be obtained:

- CDP for consistency with the California Coastal Act
- Clean Water Act Section 401 Water Quality Certification for wetland restoration from the Regional Board
- Clean Water Act Section 404 Permit and Rivers and Harbors Act Section 10 Permit
- A National Pollution Discharge Elimination System permit for construction
- CDP, Right-of-Entry Permit, long-term agreement, and other agreements or approvals required from the San Diego Unified Port District (Port) for encroachment into Port jurisdiction associated with breaching Pond 15.

If aspects of the proposed action, such as construction access roads or temporary realignment of the Saturn bike path, impact lands within the City of San Diego’s permitting jurisdiction, permits may be required.

1.5.5 California Environmental Quality Act

Although compliance with CEQA is not required to implement projects proposed within the boundaries of the San Diego Bay NWR, implementation of the ORERP requires approvals, permits, and/or certifications from several state agencies (e.g., California Coastal Commission, San Diego Regional Water Quality Control Board) and the Port of San Diego, which are subject to CEQA compliance. As such, this EIS was prepared to aid these state and local agencies in making appropriate CEQA findings. Pursuant to Section 15221 of the CEQA Guidelines, which sets forth rules governing use of a NEPA document to satisfy CEQA, this EIS includes a discussion of mitigation measures and an analysis of the potential for growth-inducing impacts associated with implementation of the proposed action. Sections 4.1 through 4.6 of this EIS include an impact analysis and a discussion of mitigation measures that would be implemented to reduce impacts to below a level of significance. Section 6.2 of this EIS includes a discussion of both action alternatives' potential impacts associated with growth inducement, hazards, and energy. State and local agencies interested in using this EIS to satisfy their CEQA requirements have and continue to work closely with the Service in completing the NEPA review for the ORERP to ensure that the discussions included in this document meet the requirements of CEQA.

1.6 PUBLIC INVOLVEMENT

1.6.1 Summary of Scoping

The Service initiated public involvement for this proposed action with the publication of a Notice of Intent in the Federal Register to prepare an EIS and request for public comment on Monday, November 14, 2011 (76 FR 70480–70481). A similar notice, which also announced the public scoping meeting schedule, was published in the *San Diego Union Tribune* on the same day. The Service hosted two public scoping meetings at 1:30 p.m. and 6:00 p.m. on December 6, 2011, at the San Diego County Swiss Club, 2001 Main Street Chula Vista, California 91911. Both meetings included a presentation describing the actions to be analyzed in the EIS, purpose and need for the proposed action, and proposed action objectives. The first meeting included a tour of the site. A combined total of 22 people attended the meetings. In addition to the comments provided at the scoping meetings, a number of written comments were provided to the Service during the 45-day comment period, which began on November 14, 2011. A summary of the public comments collected during this public scoping period is provided below:

- Consider the overall ecosystem and connectivity of this proposed action in relation to the existing open space along South San Diego Bay, Otay River, and the Tijuana River Valley.
- Priority should be given to creating, restoring, and enhancing non-vegetated intertidal mudflats.
- Consider recreational opportunities that would not impact species.
- Provide specific habitat for a variety species and their uses, such as nesting and foraging.

- Consider the layout and ecological function of the site pre-development.
- Consider potential impacts from sea-level rise and catastrophic events.
- Maintenance of a large subtidal area would be difficult; consider a broad floodplain, contiguous with a salt marsh.
- Address siltation and trash from Otay River and Nestor Creek.
- Consider impacts associated with improving habitat for predator species.
- Consider a retention system in project design.
- Consider placing the dirt in the southern area of Pond 20 if there is going to be dirt and earth removed from the Poseidon site (the Port of San Diego directly requested that the Service not consider this as an option for the ORERP).
- Conduct sediment testing for toxicity and disposal.
- Consider improving small, human-powered boat (such as rowboat or kayak) access from the north shore of Imperial Beach or San Diego east of Imperial Beach.
- Work with the Port of San Diego and City of San Diego to comprehensively plan habitat restoration for all undeveloped parcels, including Pond 20A and City of San Diego park land.
- Ensure that berms are designed to prevent any water from intruding into the Port of San Diego land in Pond 20.
- Concern about how the Carlsbad Desalination Plant Project is connected with the proposed action (transfer of materials from Carlsbad).
- Require maintenance and monitoring for as long as the Carlsbad Desalination Plant is in operation.
- Consider in the analysis the suitability of using the removed fill material as sand replenishment on the beaches of Imperial Beach.

The public scoping report prepared for the 2011 scoping period is provided as Appendix A.

Following revisions to the proposed restoration footprint, including the expansion of the Area of Potential Effect to incorporate the integrated salt pond restoration as part of the proposed action's alternatives (described in Section 1.3, Project Background), the Service published a second Notice of Intent and request for public comment in the Federal Register on January 8, 2013 (78 FR 00072). The Service also hosted another public scoping meeting on January 23, 2013, at the San Diego County Swiss Club. A total of 14 people attended this meeting. Comments were accepted at the meetings verbally and in writing, as well as after the meeting through February 8, 2013. A summary of the public comments collected during the second public scoping is provided below:

- Consider the specific impacts on all species, including predator species, impacts to eggs, and impacts to overall biodiversity.

- Consider the impacts from project-induced climate change, including on species assemblages and human pathogens through an increase in vector-conducive conditions (e.g., West Nile virus, avian flu).
- Consider the overall long-term health of San Diego Bay.
- Can the State Water Resources Control Board be included in long-range monitoring of these tidelands and water health?
- Consider the potential commercial and economic impact to the South Bay Salt Works.
- Consider catastrophic emergencies, such as massive flooding.
- Consider sea-level rise, and consider allowing for future maintenance needed to address sea-level rise.
- Consider a direct connection outflow from the Otay River to Pond 13 in case of high water volumes during a potential flood. This connection must be designed within Pond 13, as the levees of Ponds 22 and 23 cannot be breached, and there is no available space to widen the riverbed.
- Consider incorporating a community outreach component to communicate to the public the value of the restoration work that will be done and can be done in other areas.
- Consider any potential impacts on Pond 20.
- Consider one or more beneficial uses for the excavated materials.
- Consider removing contaminated soils.
- Consider providing for brine invertebrate production with restoration.
- Consider impacts to salt production.
- Consider using soils transported off the site as fill for the park site at 27th Street and Grove Avenue or to restore eelgrass habitat in Emory Cove.
- Address soil contamination if it exists.
- Consider including a long-range monitoring plan.

A list of the comments collected during and after the public scoping meetings and the public comment periods, as well as a list of the attendees at each meeting, is provided in Appendix B.

1.6.2 Distribution and Review of the EIS

From the beginning of the selection process through the distribution of the Draft EIS, every effort was made to provide the public with detailed information about the process and the alternatives to be evaluated. This EIS preparation process was formally initiated in November

2011 by publishing a Notice of Intent in the Federal Register. This notice included a project summary, background on the proposed action, a project description, and request for public comment associated with the proposed action.

In January 2013, an additional Notice of Intent was published in the Federal Register due to changes to the proposed action. This Notice of Intent also included a project summary, background on the proposed action, a project description, and request for public comment. In January 2013, an additional scoping meeting was held, and included distribution of proposed action updates.

Throughout the process, the team distributed meeting notices and updates to federal, state, and local agencies; tribal governments; non-governmental organizations; and individual contacts. Chapter 7 of this document provides additional details regarding the public involvement process and outreach program that was implemented for this EIS.

1.7 AGENCY COORDINATION

Executive Order 12372, Intergovernmental Review of Federal Programs, requires that federal agencies provide opportunities for consultation to state and local governments that would be directly affected by a federal action. Coordination and consultation is ongoing with federal and state agencies, tribes, congressional representatives, and the local governments that surround the San Diego Bay NWR. These entities were also provided with copies of the EIS for review and comment. Letters were sent to Native American tribes on November 4, 2011, to notify and to solicit input on the proposed action.

The U.S. Army Corps of Engineers, based on its jurisdiction by law and special expertise pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), has agreed to participate as a cooperating agency.

1.8 RELATED PROJECTS

The following projects are related to the ORERP, as described below:

- **Carlsbad Desalination Plant** – The City of Carlsbad approved the Precise Development Plan and Desalination Plant in December 2005 (City of Carlsbad 2005). The Commission also conditionally approved the Carlsbad Desalination Plant in August 2008 (California Coastal Commission 2008). The ORERP is funded through a mitigation plan required by the Commission’s conditional approval of the desalination plant project, as described in the MLMP, to address the impingement and entrainment impacts caused by the desalination plant’s use of estuarine water.

- **Other projects in the South San Diego Bay Unit** – The San Diego Bay NWR CCP (USFWS 2006) describes several related projects that would occur in the vicinity of the proposed action, including wildlife and habitat management, habitat restoration, and modifications to additional adjacent salt ponds.
- **Port of San Diego Pond 20 located southwest of the ORERP** – The Port of San Diego owns the southern portion of Pond 20. Its portion of Pond 20 (approximately 95 acres) is not part of the ORERP. The Port of San Diego’s long-term plan for this site includes an 84-acre mitigation bank, a 3.1-acre commercial site (located on the western edge of Pond 20) intended to complement the new Bikeway Village project, and a 7.9-acre low-intensity commercial development (located on the eastern edge of Pond 20). In 2015, the Port of San Diego issued a Request for Proposal seeking a qualified entity to establish and operate a wetlands mitigation bank on the 84 acres.
- **South San Diego Bay Coastal Wetland Restoration and Enhancement Project** – This project encompasses three separate sites: 223 acres of salt ponds on the South San Diego Bay Unit of the San Diego Bay NWR, the 50-acre Chula Vista Wildlife Reserve, and the 25-acre Emory Cove site located along the western edge of San Diego Bay to the south of Coronado Cays. The construction process was completed in 2011, and post-construction monitoring is ongoing.
- **D Street Fill Project** – The D Street Fill Project restored 11.03 acres of tidally influenced coastal wetland habitat and 1.41 acres of upland habitat within a 12.44-acre area at the southeast corner of the D Street Fill, located to the west of Interstate 5 and south of the Sweetwater River flood control channel within the Sweetwater Marsh Unit of the San Diego Bay NWR, in Chula Vista. The project was implemented by the San Diego Gas & Electric Company (SDG&E) as mitigation for impacts associated with the relocation of an electrical substation. The material excavated from the restoration site was relocated to the northwest portion of the D Street Fill to raise the elevation of approximately 29.85 acres of land managed by the Service and Port of San Diego as a California least tern nesting site. Following completion of site excavation, the restoration site was planted with appropriate native vegetation. The 5-year monitoring and maintenance program will be implemented by SDG&E. The final Environmental Assessment for the project was completed in September 2015 (USFWS 2015).

1.9 DOCUMENTS INCORPORATED BY REFERENCE

The MLMP document requires Poseidon to submit a proposed mitigation site and preliminary restoration plan that, when implemented, will achieve the mitigation requirements outlined in Section 1.3. The ORERP was designed to fulfill the requirements, objectives, and restrictions outlined in the MLMP. Therefore, these aspects of the MLMP have been incorporated into this document by reference.

In addition to the MLMP requirements, the ORERP was designed to be consistent with the goals and objectives presented in the San Diego Bay NWR CCP. Therefore, the CCP and Final EIS and Record of Decision are incorporated by reference into this EIS, and, where appropriate, referenced sections have been summarized for the benefit of the reader.

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