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STAFF RECOMMENDATION ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-009-10
Staff:	LJS-SF
File Date:	3/9/2010
60 th Day:	5/8/2010
75 th Day:	5/23/2010
Commission Meeting:	5/13/2010

FEDERAL AGENCY: **U.S. Fish and Wildlife Service**

PROJECT
LOCATION:

South San Diego Bay Unit of the San Diego Bay National Wildlife Refuge (**Exhibits 1 and 2**).

PROJECT
DESCRIPTION:

Restoration of Western Salt Ponds (Ponds 10, 10A, and 11) to shallow subtidal, intertidal mudflat, low salt marsh, mid salt marsh, and high salt marsh habitat.

SUBSTANTIVE
FILE DOCUMENTS:

See Page 17

STAFF RECOMMENDATION: Concurrence Motion is on Page 6

EXECUTIVE SUMMARY

The U.S. Fish and Wildlife Service (Service) has submitted a consistency determination for wetland restoration of the western salt ponds within the South San Diego Bay Unit of the San Diego Bay National Wildlife Refuge (Refuge). The three western ponds encompass approximately 223 acres of open water and seven acres of associated levees in the southwest corner of San Diego Bay. The ponds are part of a 1,060-acre commercial solar salt facility that has existed in south San Diego Bay for over 100 years and currently operates under a Refuge special use permit. A Comprehensive Conservation Plan (CCP) and an Environmental Impact Statement were approved by the Service in September 2006 to provide a management program for the Refuge through the year 2022. The proposed western salt pond restoration project is identified in the CCP as the first phase of a comprehensive salt pond restoration plan for south San Diego Bay. The Commission's Executive Director concurred with negative determination ND-070-06 in September 2006 for the CCP in part due to the Service's commitment to submit additional consistency and/or negative determinations to the Commission for any future CCP projects that held the potential to affect coastal zone resources. The Executive Director recently concurred with negative determination ND-065-09 for construction of a new tide gate at Pond 12 in south San Diego Bay. The subject consistency determination is the next in a series of consistency submittals expected as the Service implements CCP projects in the Refuge.

The proposed project would restore tidal exchange to the western salt ponds to support a range of tidal habitats, including 35 acres of shallow subtidal, 20 acres of intertidal mudflats, 123 acres of low salt marsh (cordgrass-dominated salt marsh), 22 acres of mid salt marsh, and 14 acres of high salt marsh; the remaining levees would support 16 acres of upland coastal scrub. The proposed restoration emphasizes: (1) creation of a system of subtidal channels to ensure adequate tidal circulation throughout the western salt ponds; and (2) restoration of cordgrass-dominated salt marsh habitat that historically occurred along the south end of San Diego Bay prior to the construction of the salt works. These habitat types will in turn support the endangered light-footed clapper rail, western snowy plover, California least tern, and other shorebirds of management concern. The Service anticipates implementing the restoration project between September 2010 and February 2011.

The restoration project is an allowable use in wetlands, is the least environmentally damaging alternative, and includes sufficient minimization, mitigation, and monitoring measures to assure that it will protect and improve wetland habitat. The project is consistent with the wetlands policy of the California Coastal Management Program (CCMP; Coastal Act Section 30233). The project includes construction methods and mitigation measures to protect water quality in south San Diego Bay and is consistent with the water quality and marine resource policies of the CCMP (Coastal Act Sections 30230 and 30231). The project is an allowable use in environmentally sensitive habitat areas (ESHA) and would restore and increase the extent and diversity of salt marsh habitat in south San Diego Bay. The project includes mitigation measures to minimize construction impacts and monitoring to assure long-term success of the restoration project. The project is consistent with the ESHA policy of the CCMP (Coastal Act Section 30240).

The project does not provide new public access into the western salt ponds area due to the environmentally sensitive habitat to be created, the presence of endangered species, and the breaching of levees. However, existing public access along the western and southern edges of the project area will remain and the Service intends to construct a new pedestrian pathway along the southern edge of Pond 10 in conjunction with the restoration project. The project is consistent with the public access and recreation policies of the CCMP (Coastal Act Sections 30210-30212, 30214, and 30220).

The project includes an earthen berm alongside the eastern edge of Pond 10 to contain tidal waters during very high tides and prevent flooding of adjacent developed areas after the introduction of muted tidal flows into Pond 10A. The project is consistent with the hazards policy of the CCMP (Coastal Act Section 30253). In light of the archaeological surveys completed in the restoration project area, and with the mitigation measures committed to by the Service, the proposed project would not adversely affect archaeological resources and is consistent with the archaeological resource protection policy of the CCMP (Coastal Act Section 30244). The restoration of coastal wetland habitat in the western salt ponds will not adversely affect public views but rather will enhance the views of salt marsh habitat in this corner of south San Diego Bay. The project is consistent with the scenic view policy of the CCMP (Coastal Act Section 30251).

STAFF SUMMARY AND RECOMMENDATION

I. PROJECT DESCRIPTION. The U.S. Fish and Wildlife Service (Service) proposes to restore the western salt ponds (Ponds 10, 10A, and 11) within the South San Diego Bay Unit of the San Diego Bay National Wildlife Refuge (Refuge)(**Exhibits 1 and 2**). The Refuge, managed by the Service, includes state tidelands leased to the federal government by the State Lands Commission (SLC) as well as upland areas owned in fee title by the federal government. The leased portion of the Refuge includes the majority of the salt ponds located at the south end of San Diego Bay, including the western salt ponds. The lease currently runs through April 2048 but the SLC and the Service are working to extend the lease through April 2065.

The Service states that the western salt ponds encompass approximately 223 acres of open water storage and seven acres of associated levees in the southwest corner of San Diego Bay. These three salt ponds are currently part of a 1,060-acre commercial solar salt facility that has operated for more than 100 years (well before the Refuge was established) and which now operates under a Refuge special use permit. As part of the commercial operation, these ponds function as primary ponds and have salinity levels slightly higher than those of the adjacent bay. The tide gate in Pond 10 allows water from the bay to enter the solar salt system, but once the bay water flows into the salt pond system that is where it remains. The ponds are a closed system and are not subject to daily tidal exchange.

A Comprehensive Conservation Plan (CCP) and an Environmental Impact Statement were approved by the Service in September 2006 to provide guidance for Refuge management through the year 2022. The proposed western salt pond restoration project was identified in the CCP as

the first phase of a comprehensive salt pond restoration plan for south San Diego Bay. The Commission's Executive Director concurred with negative determination ND-070-06 in September 2006 for the CCP in part due to the Service's commitment to submit additional consistency and/or negative determinations to the Commission for any future CCP projects that held the potential to affect coastal zone resources. The Executive Director recently concurred with negative determination ND-065-09 for construction of a new tide gate at Pond 12 in south San Diego Bay. The subject consistency determination is the next in a series of consistency submittals expected as the Service implements CCP projects in the Refuge.

The Service states that the proposed restoration of the western salt ponds is an element of the South San Diego Bay Coastal Wetland Restoration and Enhancement Project, a larger proposal to restore and enhance coastal wetlands in south San Diego Bay. This project involves a number of funding partners, including the Service, State Coastal Conservancy, U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration (NOAA), and the Port of San Diego. The Conservancy is the recipient of two grants (a National Coastal Wetlands grant from the Service and an American Recovery and Reinvestment Act award from NOAA) that will provide funding to the Service for the restoration of the western salt ponds currently under its management, as well as other lands managed by the Port of San Diego. However, the subject consistency determination applies solely to the Service's proposed restoration of the western salt ponds and not to the Port of San Diego's proposed restoration projects at the Chula Vista Wildlife Reserve and Emery Cove. The proposed restoration of the western salt ponds is a stand-alone project not dependent on proposed restoration projects at Chula Vista Wildlife Reserve and Emery Cove.

The proposed project would restore tidal exchange to the western salt ponds to support a range of tidal habitats, including 35 acres of shallow subtidal, 20 acres of intertidal mudflats, 123 acres of low salt marsh (cordgrass-dominated salt marsh), 22 acres of mid salt marsh, and 14 acres of high salt marsh; the remaining levees would support 16 acres of upland coastal scrub (**Exhibit 3**). The consistency determination states that the proposed restoration emphasizes: (1) creation of a system of subtidal channels provided to ensure adequate tidal circulation throughout the western salt ponds; and (2) restoration of the cordgrass-dominated salt marsh habitat that historically occurred along the south end of San Diego Bay prior to the construction of the salt works. These habitat types will in turn support the endangered light-footed clapper rail, western snowy plover, California least tern, and other shorebirds of management concern. The following are the primary elements of the proposed restoration plan:

- Tidal Conditions. Full tidal exchange will be restored in Ponds 10 and 11, and muted tidal exchange will occur in Pond 10A. The five existing 30-inch-diameter culverts connecting Ponds 10 and 10A would remain in place and provide muted tidal conditions in Pond 10A. Levee breaching would provide full tidal exchange between Ponds 10 and 11 and San Diego Bay.
- Salt Pond Preparation. Restoration of the salt ponds will require modifying the elevations within the ponds to provide conditions suitable for habitat types, and breaching the outer levees to restore tidal influence within the ponds. Approximately 150,000 cubic yards of

substrate material will be excavated and redistributed between Ponds 10 and 11. In addition, up to 76,000 cubic yards of material may be imported into Pond 11 from the Chula Vista Wildlife Reserve (CVWR) via a temporary 6,200-foot-long pipeline across the southernmost end of San Diego Bay. (These materials will be available should the Port of San Diego implement its salt marsh habitat restoration project at CVWR. However, the restoration of the western salt ponds will go forward with or without the materials from CVWR.) The proposed earthwork is designed to lower the elevations in Pond 10 and raise the elevation in portions of Pond 11, in order to create elevations between +3.5 feet and +4.5 feet mean lower low water which are appropriate for supporting cordgrass-dominated salt marsh habitat.

A system of subtidal channels will be created in Ponds 10 and 11 to facilitate good tidal circulation within the restored ponds. These channels will range in depth between -4.0 to -0.4 feet NAVD88 (North American Vertical Datum of 1988). Two openings will be required within the internal levee that separates Ponds 10 and 11. An existing opening in the levee near the western edge of the ponds will be used and a second opening will be cut in the internal levee about halfway between the eastern and western edges of the ponds. An existing opening at the eastern edge of the ponds will be closed as it is not needed for tidal circulation.

The outer levees will be breached in two locations to facilitate full tidal exchange within Ponds 10 and 11. A breach at the northeast corner of Pond 11 will be 170 feet wide, and a second breach at the location of the old tide gate at Pond 10 will be 115 feet wide. The portions of the levees not affected by breaching will be retained to provide roosting habitat and refugia for various avian species. The levees will not be actively maintained and as a result some sections may erode over time due to tidal erosion, wind waves, and sea level rise.

- Pond 10A Berm. A 1.5- to 2.0-foot-high earthen berm will be constructed along the eastern edge of Pond 10A from just south of the Bayshore Bikeway south for a distance of approximately 1,500 linear feet. The berm will have a 10-foot-wide crest and 4:1 side slopes and is designed to retain tidal waters within the boundaries of the Refuge during the highest high tides, which occur once or twice each year. Native vegetation will be planted on the berm.
- Fencing. The restoration project includes a six-foot-high, black vinyl chain link fence along some or all of the western edge of Ponds 10, 10A, and 11. To the extent possible, the fence would be installed below the grade of the adjacent roadway, near the base of the slope that extends down from the roadway to the ponds, and above the influence of the tides. Native vegetation would be planted adjacent to the fence where it would occur within sight lines from SR-75 to obscure its appearance.
- Revegetation/Monitoring. A detailed planting plan will be developed for the recontoured ponds with the focus on establishing cordgrass within Ponds 10 and 11. In addition, species to be considered for planting in the mid-high salt marsh zones include shore

grass, salt grass, jaumea, alkali heath, and saltwort. Cordgrass would be propagated from seed collected from surrounding salt marsh areas in south San Diego Bay; other species would be propagated from cuttings harvested from the existing salt marshes in south San Diego Bay.

A detailed monitoring plan is under development. The plan will include pre- and post-construction monitoring of physical and biological processes occurring in the ponds. Topography, bathymetry, water quality, soil characteristics (texture, organic content, salinity/conductivity, and pH), benthic macroinvertebrate sampling fish sampling, bird presence and absence surveys, and vascular plant inventory and mapping. Funding is available to continue monitoring for three years following pond breaching, which is expected to occur in February 2011. Additional monitoring will continue beyond 2014 as funding becomes available. The planting and monitoring plans will be submitted to the Commission's Executive Director prior to the start of project construction.

- **Construction.** Restoration activities will use land-based earthwork and/or hydraulic dredging, depending on the feasibility/availability of equipment, the ability of project area soils to support land-based equipment, and the ability of particular dredges to get close enough to dredge sites to make dredge mobilization affordable. The ponds would first be drained, the ground allowed to dry, grading and recontouring undertaken, and levees breached to introduce tidal exchange. Construction activities would occur between sunrise and sunset Monday through Saturday from mid-September 2010 through mid-February 2011; any hydraulic dredging work would occur 24 hours per day during that same calendar period.

II. FEDERAL AGENCY'S CONSISTENCY DETERMINATION. The U.S. Fish and Wildlife Service has determined the project consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

III. STAFF RECOMMENDATION.

The staff recommends that the Commission adopt the following motion:

Motion: I move that the Commission **concur** with consistency determination CD-009-10 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

Staff Recommendation:

The staff recommends a **YES** vote on the motion. Passage of this motion will result in an agreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Concur with Consistency Determination:

The Commission hereby **concurs** with the consistency determination by the U.S. Fish and Wildlife Service, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

IV. FINDINGS AND DECLARATIONS:

The Commission finds and declares as follows:

A. Wetlands, Water Quality, and Environmentally Sensitive Habitat. The Coastal Act provides the following:

Section 30233(a). The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

...

(6) Restoration purposes.

...

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing wetlands and estuaries shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the California Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of South San Diego bay, if otherwise in accordance with this division.

Section 30230. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231. The biological productivity of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30240.

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

As the proposed restoration project includes excavation and fill of coastal waters and wetlands, the project must pass the three-part test of Coastal Act Section 30233(a): it must be an allowable use, it must be the least environmentally damaging feasible alternative, and it must include mitigation measures to minimize environmental effects. The purpose of the project is to restore wetland habitat and tidal circulation to the western salt ponds within the South San Diego Bay Unit of the San Diego Bay National Wildlife Refuge. The Commission finds that the project is therefore an allowable use under Section 30233(a)(6).

The consistency determination included an analysis of project alternatives:

Three alternatives are evaluated for the western salt ponds. Under the first alternative (1A), the ponds would be restored using material imported from the CVWR [Chula Vista Wildlife Reserve]. Alternative 1A has two options related to Pond 10A: 1) retain the existing culverts between Pond 10 and 10A (proposed action), and 2) replace the existing culvert with a new weir. The habitat distribution within Pond 10A is different under each option. The second alternative (1B) would restore the ponds without importing material from the CVWR. The third alternative (1C) is the no action alternative.

...

A proposal to restore Pond 10A to full tidal exchange was considered but dismissed from further consideration because of the depth at which a new culvert would have to be constructed under the Bayshore Bikeway between Pond 10 and 10A, as well as the extent of grading that would be required to lower the existing elevations within Pond 10A to achieve full tidal exchange.

The Service concluded and the Commission agrees that the proposed excavation and fill activities are the minimum necessary to restore full and muted tidal function within the western salt ponds, which will in turn restore salt marsh habitat to approximately 214 acres of solar salt ponds in south San Diego Bay. The alternatives to the proposed project provide less long-term benefits to the project area due to insufficient materials to reconfigure Ponds 10 and 11 to create elevations to support salt marsh habitat, or could create adverse impacts to public access and/or increase potential flood hazards due to increased excavation in Pond 10A to provide full tidal exchange in this location. Concerning the mitigation test, the Commission finds the project consistent because it includes sufficient minimization, mitigation, and monitoring measures to restore and protect wetlands and environmentally sensitive habitat (**Exhibit 4**). Therefore, no additional mitigation measures are required.

The project is designed to restore, enhance, and protect water quality and marine resources under Sections 30230 and 30231 of the Coastal Act. The consistency determination states that:

. . . the project involves the restoration of approximately 215 acres of coastal wetlands, of which approximately 35 acres would support shallow subtidal marine habitat. The restored habitat, which will be managed to sustain the biological productivity of the habitat in accordance with the regulations and policies of the National Wildlife Refuge System, is intended to support a range of organisms from plants and benthic invertebrates to fish and a variety of avian species. Benefits to fish will include the creation of new foraging habitat for adult and juvenile fish; the expansion of areas appropriate for spawning; increased cover for juvenile and adult fish from predators; and improvements to water quality.

. . .

The project . . . will restore tidal influence to approximately 215 acres of the bay that historically supported intertidal habitat but is currently closed off from the bay to facilitate a commercial solar salt operation. The restoration of salt marsh habitat within these ponds will also provide benefits to water quality within south San Diego Bay.

. . .

. . . all dredging activity associated with the project will be conducted in a manner that will not significantly increase turbidity within San Diego Bay on a temporary or long-term basis, nor will it impact marine or wildlife habitat.

The consistency determination examines the potential for adverse effects on water quality from resuspension of sediments within the ponds during initial breaching of the levees, and describes the mitigation measures that the Service will implement (e.g., turbidity measurements, temporary retention ponds, silt curtains) to ensure that turbidity levels in the ponds are acceptable for discharge into San Diego Bay and meet acceptable transparency levels as established in the Water Quality Control Plan for the San Diego Basin.

The consistency determination states that if the 76,000 cubic yards of material excavated from the Chula Vista Wildlife Reserve (CVWR) are delivered to the western salt ponds site as slurry pumped across the bay, baffles and silt curtains could be used to settle sediments prior to decanting desilted water back into the bay through siphons or temporary flashboard weirs constructed through the outer levee. This system would allow for release of water that would not result in substantial changes in ambient turbidity levels within the bay during marsh construction. Throughout the western salt ponds construction area, silt curtains, silt fencing, temporary flashboards, and slope stability measures would be implemented to ensure that sediment from adjacent construction activity does not enter the bay or adjacent wetland areas.

The Service reports that based on the results of the sediment sampling and laboratory analysis conducted to characterize the sediment chemistry and physical properties of the sediments in the western ponds, the restoration project would not result in the release of any chemical constituents into San Diego Bay that would represent cause for concern. However, while sediment characterization is not yet completed for the materials to be excavated from the CVWR and possibly placed at the western salt ponds site, the Service states in the consistency determination that:

. . . to avoid any adverse effects to water quality in the bay as a result of using this material in Pond 11, prior to Service acceptance of this material, the sediment chemistry and physical properties of the sediments to be excavated must be characterized and the results of this characterization submitted to the Service's Contaminants Division for review. If the Contaminants Division determines based on the results of the chemical and physical analyses of the sediment samples, that the average grain size of the sediments is suitable for salt marsh restoration and the sediments do not contain contaminants of concern with levels that significantly exceed effects range low screening levels, then the 76,000 cubic yards of material could be imported to the western salt ponds to increase elevations in Pond 11 to achieve desired habitat elevations.

The Commission finds that the proposed restoration project includes construction methods and mitigation measures that will minimize potential adverse but temporary effects on water quality in south San Diego Bay that may result from excavation, grading, fill placement, levee breaching, and discharge of water from the salt ponds into the bay.

The project is an allowable use under Section 30240 as on-site habitat restoration is a use "dependent on the resources." The consistency determination addresses the protection of environmentally sensitive habitat:

. . . dredging is only proposed for the purpose of breaching the levees to restore tidal influence to the ponds and to establish appropriate elevations within the ponds to support the desired subtidal and intertidal habitats including shallow subtidal, intertidal mudflat, cordgrass-dominated salt marsh habitat to support the light-footed clapper rail, and pickleweed-dominated salt marsh habitat.

. . .

Adequate measures have been incorporated into the scope of the project to reduce the potential for impacts to environmentally sensitive lands adjacent to the restoration site to below a level of significance. These measures include avoiding construction during the nesting season, restricting construction to the project footprint, and implementing pre- and post-construction monitoring of biological resources. In addition, the proposed action will restore additional acreage of environmentally sensitive lands within San Diego Bay.

The Service provided in the consistency determination correspondence from the National Marine Fisheries Service (NMFS) regarding potential project impacts on green sea turtles, in particular, the proposed excavation of materials at the Chula Vista Wildlife Reserve and transport to the western salt ponds. With the mitigation measures incorporated into the project to protect green sea turtles and their habitat (**Exhibit 4**), NMFS determined that project impacts would be localized, temporary, and insignificant, and that the project is not likely to adversely affect green sea turtles.

In conclusion, the Commission finds the restoration project is an allowable use in wetlands, is the least environmentally damaging alternative, and includes sufficient minimization, mitigation, and monitoring measures to assure that it will protect and improve wetland habitat. The project will also avoid significant disruption to marine and wildlife habitats and water circulation and would improve functional capacity to the wetlands of south San Diego Bay. Therefore, the Commission finds that the project is consistent with the wetlands policy of the California Coastal Management Program (CCMP; Coastal Act Section 30233). The project includes construction methods and mitigation measures to protect water quality and marine resources in south San Diego Bay, and the Commission finds that the project is consistent with the water quality and marine resource policies of the CCMP (Coastal Act Sections 30230 and 30231). The Commission finds the project is an allowable use under Section 30240 as a use dependent on environmentally sensitive habitat areas (ESHA). The project would restore ESHA and increase the extent and diversity of salt marsh habitat in south San Diego Bay. Although some elements of the restoration work may have short-term adverse effects, the project includes mitigation measures that would minimize these effects as well as monitoring to assure long-term success of the restoration project. The Commission determines that this project is consistent with the ESHA policy of the CCMP (Coastal Act Section 30240).

B. Public Access and Recreation. The Coastal Act provides the following:

Section 30210. In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212(a). Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby

Section 30214(a). The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

Section 30220. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

The consistency determination examines public access and recreational resources at and adjacent to the western salt ponds. Ponds 10 and 11 currently consist of open water surrounded by levees to the north, east, and south; water levels in Pond 10A vary throughout the year. Currently, no public access is permitted within the ponds or on the majority of the levees surrounding the ponds. However, the levee that extends between Ponds 10 and 10A, which is not included within the Refuge boundary, is open to public access via the Bayshore Bikeway, which was constructed within an existing railroad right-of-way (**Exhibit 5**).

The Service states that following restoration:

. . . the restored ponds will consist of subtidal channels and intertidal habitat surrounded by levees that have been breached in various locations (see Figure A). No public access into the ponds or on the remaining physically accessible sections of the levees will be permitted. These public access restrictions are necessary to protect sensitive habitat and listed species. The cordgrass-dominated salt marsh habitat planned for portions of Ponds 10 and 11 is intended to provide year-round habitat for the endangered light-footed clapper rail, while the high marsh habitat that occurs along the edges of the levees will continue to support the Belding's savannah sparrow. The endangered California least tern is expected to forage in the shallow subtidal habitat proposed throughout Ponds 10 and 11.

However, the Service also states that the restoration project “will not result in any permanent changes to the current public access routes along the south end of San Diego Bay.” The consistency determination additionally provides that:

The Bayshore Bikeway, which accommodates bicycle and pedestrian access, extends around the south end of the bay to the west and south of the proposed project site, providing coastal access for the public. No public access onto the project site is currently available and no public access will be provided into this area following restoration due to the sensitivity of the resources that will be supported within the restored ponds. However, ample visual access into the site will continue to be provided from the Bayshore Bikeway, at the South Bay Biological Study Area overlook located just to the west of Pond 11, and from the future Bayside Birding and Walking Trail proposed by the Service for construction along the southern edge of Pond 10 eastward to 10th Street in Imperial Beach.

The Service intended to include construction of the Bayside Birding and Walking Trail in this consistency determination but funding for this project element was delayed. The Service anticipates submitting a consistency or negative determination to the Commission for the walking trail project in late spring or early summer of 2010 (**Exhibit 6**).

In addition, because the proposed project may include importing up to 76,000 cu.yds. of sediment from the Chula Vista Wildlife Reserve into Ponds 10 and 11 to create suitable elevations for salt marsh habitat, the Service incorporated the following measures into the project to ensure that water-oriented recreational activities occurring in south San Diego Bay are not affected during project construction:

(1) the temporary pipeline that will be used to transport material from the Chula Vista Wildlife Reserve to Pond 11 will be sunken into an existing channel located adjacent to the Wildlife Reserve to accommodate small vessels traveling through the area, (2) hazard buoys and/or signage will be installed along the alignment of the pipe to demarcate its location for recreational boaters, (3) a notice describing the location of the pipeline will be prepared and distributed to all personal water craft rental businesses from Pepper Park south, and (4) the notice will be posted in the Notice to Mariners.

In conclusion, the Commission finds that while construction of the proposed project may create minor impacts on existing public access on the perimeter of the project area, those effects will be temporary and not adverse. The project does not include new public access into the western salt ponds area due to the environmentally sensitive habitat to be created, the presence of endangered species, and the breaching of levees. However, existing public access along the western and southern edges of the project area will remain and the Service intends to construct a new pedestrian pathway along the southern edge of Pond 10 in conjunction with the restoration project. The Commission agrees that the proposed project will protect existing and provide future public access and recreation benefits in a manner that will not adversely affect the restoration and protection of wetland habitat. Therefore, the Commission finds that the project is consistent with the public access and recreation policies of the CCMP (Coastal Act Sections 30210-30212, 30214, and 30220).

C. Hazards. The Coastal Act provides the following:

Section 30253. New development shall do all of the following:

(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. . . .

The consistency determination examines potential flood hazards to adjacent developed areas that could occur as a result of the restoration of tidal flows into the western salt ponds:

During the environmental review process for this project, the project engineer reported that anecdotal evidence suggests that under existing conditions the properties located to the east of Pond 10A, as well as the existing storm drains in the area, can experience tidal inundation during very high tides. As a result, modeling was conducted to determine if the new hydraulic connections proposed within the salt ponds would exacerbate the potential for tidal flooding in the vicinity of the ponds. The analysis, which considered the maximum water levels in the western salt ponds and along the Otay River for two scenarios – MHHW at San Diego Bay (5.29 feet NAVD88) and the maximum observed tide at San Diego Bay for the 1983-2001 tide epoch (7.71 feet NAVD88) – showed that there is no difference in water levels in the western ponds under existing and with project conditions. Therefore, the proposed project would have no effect on the level or rate of tidal flooding within the adjacent neighborhood. Nevertheless, the project includes a proposal to construct a 1.5 to 2-foot high berm along the eastern edge of Pond 10A to contain tidal waters generated during these very high tides. The Service is also coordinating with the City of Imperial Beach to implement additional measures for addressing the existing effects of high tide events on the storm drain in Pond 10A.

Modeling was also conducted to determine the effects of flooding from the Otay River watershed on these areas following project implementation. The results confirmed that the proposed action would not increase flooding on- or off-site in the event of substantial rainfall.

The Commission finds that the proposed wetland restoration project would not generate increased flood hazards in the project area. The project includes an earthen berm alongside the eastern edge of Pond 10 to contain tidal waters during very high tides and prevent flooding of adjacent developed areas after the introduction of muted tidal flows into Pond 10A. The Commission therefore determines that the proposed project is consistent with the hazards policy of the CCMP (Coastal Act Section 30253).

D. Cultural Resources. The Coastal Act provides the following:

Section 30244. Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The consistency determination notes that an archaeological site (CA-SDI-5454/12270) is located in the area adjacent to the western salt ponds along the right-of-way of State Highway 75 and has been previously recommended for National Register of Historic Places eligibility:

This site was originally recorded as having multicomponents including a U.S. Calvary base, the historic WWII era radio facility and bunkers, and a prehistoric midden covering more than ten acres (Pigniolo 2001). The site was updated in 1995 (Apple et al. 1995 in Pigniolo 2001) and the boundaries were expanded to include both sides of SR-75. The update record described the site as an extensive lithic and shell scatter with several hundred flakes, shell dominated by Chione and Argopecten, and fire-affected rock. The site, which was reexamined in 2001 (Pigniolo 2001), has been affected by the construction of SR-75 and other portions of the site have been covered by fill from road and earlier railroad construction. Recent evaluation of the site indicated that it appears to represent a predominantly Archaic period series of summer occupations that utilized the high point of a knoll overlooking San Diego Bay to the east. Although 30 percent of the site has been destroyed or buried, the remaining portions of the site retain enough integrity and content to meet Criterion D, making it eligible for inclusion on the NRHP (Pigniolo 2001).

The consistency determination later states that while archaeological site CA-SDI-5454/12270 is located in part along the margins of Ponds 10 and 11, no dredging is proposed along the edge of Pond 11 and that dredging proposed near the edge of Pond 10 would not occur within the upland edges of this pond. While the Service concluded that no adverse effects to this site are anticipated as a result of the wetland restoration project, the Service nevertheless incorporated a cultural resource mitigation measure into the project to further ensure that no impacts will occur to the site. The measure requires that prior to completion of the final restoration plans the northern and eastern boundaries of the archaeological site will be delineated. If it is determined that the site boundaries do extend into the pond, the restoration plans shall exclude these areas from the construction site and the construction specifications shall clearly indicate all areas in which construction shall be avoided. In addition, the Service will ensure that any portions of the archaeological site that may extend into the pond are properly fenced with temporary construction fencing to ensure that no portions of the site are inadvertently impacted by construction equipment. If the site extends into a construction truck access route, the Service will ensure that any surface artifacts will be collected, cataloged, and properly curated in accordance with existing regulations, and the route will be capped to prevent any disturbance to subsurface deposits.

In light of the archaeological surveys completed in the restoration project area, and with the mitigation measures committed to by the Service, the proposed project would not adversely affect archaeological resources. Should such resources be found during project construction, mitigation measures will ensure that these resources would be protected and that any such discovery would directly benefit the understanding of historic uses in the region. The Commission concludes that the project is consistent with the archaeological resource protection policy of the CCMP (Coastal Act Section 30244).

E. Scenic Views. The Coastal Act provides the following:

Section 30251. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

The consistency determination examined the potential project impacts on visual resources and concluded that the restoration of native coastal wetland habitat would not obstruct any public views from State Highway 75 or the Bayshore Bikeway and would not degrade the existing scenic quality of the project area. Construction activities will cause temporary adverse effects on scenic resources in the project area. The appearance of the western salt ponds following restoration would change from that of water-filled ponds to intertidal mudflats and cordgrass-dominated salt marsh covered by water during periods of tidal inundation. Construction of a ten-foot-wide, 1.5 to 2.0-foot-high earthen berm with 4:1 slopes along the eastern edge of Pond 10A would not block any public views of San Diego Bay. The berm would be planted with native vegetation to similar to native upland vegetation that currently exists in the project area.

The proposed restoration project also includes future plans to install a maximum six-foot-high, black vinyl chain-link fence along portions of the western boundary of the ponds. The fence would be installed only if needed in locations where trespass into the restored salt marsh is degrading habitat and/or adversely affecting sensitive species. The consistency determination states that in some sections, the fence could be installed below the grade of the adjacent highway near the base of the slopes that extend down to the ponds, thereby reducing or fully obscuring the visibility of the fence from State Highway 75. The Service determined that the fence location, the planting of vegetation adjacent to the fence where it is visible from public rights-of-way, and the use of black vinyl materials would reduce any visual impact to below a level of significance.

The Commission agrees that construction of the proposed wetland restoration project may temporarily affect scenic views in the project area. Overall, however, the restoration of coastal wetland habitat in the western salt ponds will not adversely affect public views but rather will enhance the views of salt marsh habitat in this corner of south San Diego Bay. The Commission therefore finds that the proposed project is consistent with the scenic view policy of the CCMP (Coastal Act Section 30251).

SUBSTANTIVE FILE DOCUMENTS:

1. Negative Determination ND-065-09 (U.S. Fish and Wildlife Service, Tide Gate Replacement at Pond 12, San Diego Bay National Wildlife Refuge).
2. Negative Determination ND-070-06 (U.S. Fish and Wildlife Service, Comprehensive Conservation Plan, San Diego National Wildlife Refuge).
3. Final Environmental Assessment, South San Diego Bay Coastal Wetland Restoration and Enhancement Project, San Diego County, CA, October 2009.

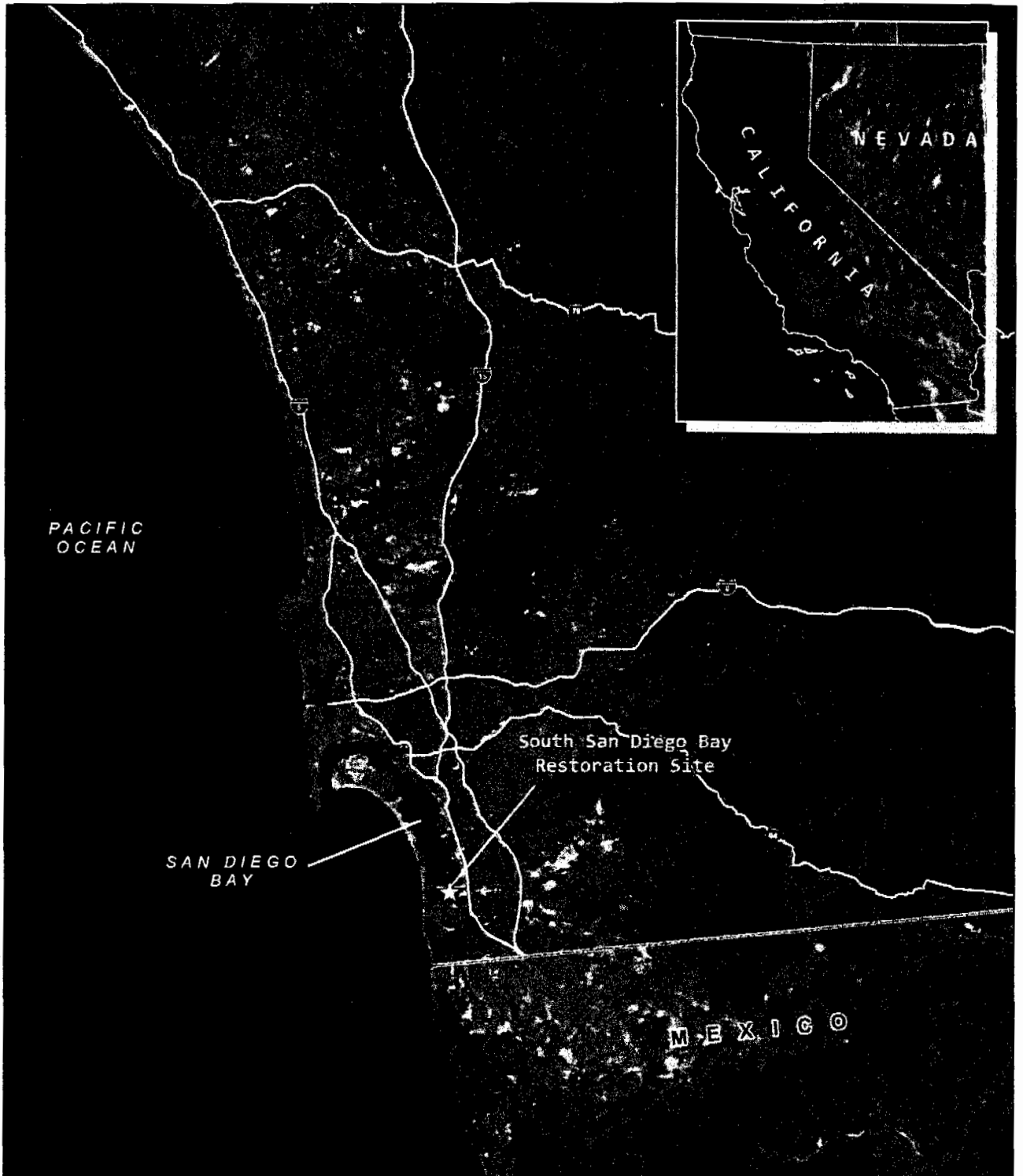
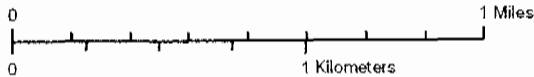


Figure 1 - Vicinity Map
South San Diego Bay Coastal Wetland Restoration and Enhancement Project

EXHIBIT NO. 1
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 Data Source: FWS, CASIL
 Image Source: USGS NAIP 2005



- Project Boundaries
- Salt Pond Number

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

EXHIBIT NO. 2
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Figure 3 - Restoration Plan for the Western Salt Ponds Proposed Action, 1A(1)

EXHIBIT NO. 3
APPLICATION NO.
CD-009-10

Attachment 1
South San Diego Bay Coastal Wetland Restoration and Enhancement Project Final Mitigated Negative Declaration
Final Mitigation, Monitoring, and Reporting Plan

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Sediment from CVWR has not yet been characterized. Potential impacts to water quality could occur if contaminated soil exists and is transferred from CVWR to Pond 11.	Mitigation Measure #1 (Water Quality): Prior to Service acceptance of the 50,000 cubic yards of material from the Chula Vista Wildlife Reserve (CVWR), the Port shall characterize the sediment chemistry and physical properties of the sediments to be excavated at the CVWR and submit the results of the characterization to the Service's Contaminants Division for review. The Service will accept the material for placement in Pond 11 only if the Service determines that the sediment properties will not result in adverse effects to the bay's water quality or biological processes within in the bay and/or restored salt ponds.	Chula Vista Wildlife Reserve	Monitoring will consist of characterization of sediment at Chula Vista Wildlife Reserve prior to completion of final restoration plans. Reporting will involve communication of monitoring results from the Port to the Service; and acceptance of the material only after review and approval by the Service's Contaminants Program at the Carlsbad Fish and Wildlife Office, as well as the Regional Water Quality Control Board's concurrence through the issuance of applicable permits and/or certifications.	Mitigation measure would ensure that sediment transported to the western salt ponds would not result in any impacts to water quality within San Diego Bay.	Port of San Diego and Service	Prior to completion of final engineering for the project.
Excavation to prepare the salt ponds and CVWR for restoration, truck activity, and construction of the tide gate could create	Mitigation Measure #2 (Air Quality): The final construction plans and specifications for restoration at the CVWR and restoration of the western salt ponds shall include requirements for the implementation of measures to prevent visible dust emissions from leaving the project site boundary.	Salt Ponds and CVWR	Site monitoring by the Port and Service project managers will ensure that construction specifications are being implemented.	Mitigation measure considered effective if fugitive dust does not leave construction site.	Port of San Diego and Service	Throughout construction periods for tide gate, and CVWR and salt ponds restoration.

EXHIBIT NO. 4
APPLICATION NO.
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Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
fugitive dust.	including, but not limited to, watering prior to and during any earth movement, watering exposed soil three times per day, installing wind fencing, covering excavated materials to prevent erosion, and stopping work during high wind conditions. Erosion control within each of the project limits shall also be required as part of the standard project specifications.					
Dredging of the ponds, construction of the tide gate, and using heavy equipment or trucks could potentially create fugitive dust.	Mitigation Measure #3 (Air Quality): The final construction plans and specifications for restoration at the CVWR and restoration of the western salt ponds shall include the requirement that the construction contractor cover all haul vehicles to reduce fugitive dust generated during the transport of materials.	Salt Ponds and CVWR	Site monitoring by the Port and Service project managers will ensure that construction specifications are being implemented.	Mitigation measure considered effective if fugitive dust does not leave construction site.	Port and Service	Throughout construction periods for tide gate, and CVWR and salt pond restoration.
Dredging of the ponds, construction of the tide gate, and using heavy equipment or trucks could potentially create fugitive dust.	Mitigation Measure #4 (Air Quality): The final construction plans and specifications for restoration at the CVWR and restoration of the western salt ponds shall include the requirement that the construction contractor not allow construction equipment and vehicles to track dirt and dust onto public roads. Equipment and tires shall be washed/swept prior to leaving the project site.	Salt Ponds and CVWR	Site monitoring by the Port and Service project managers will ensure that construction specifications are being implemented.	Mitigation measure considered effective if fugitive dust does not leave construction site.	Port and Service	Throughout construction periods for tide gate, and CVWR and salt pond restoration.
Heavy equipment required for dredging and construction and	Mitigation Measure #5 (Air Quality): The final construction plans and specifications for restoration at the CVWR and the western salt ponds shall	Salt Ponds and CVWR	Site monitoring by the Port and Service project managers will ensure that construction specifications are being	Mitigation measure considered effective if fugitive dust	Port and Service	Throughout construction periods for tide gate, and CVWR and salt pond

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Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>the vehicles of commuting construction workers and trucks hauling equipment would generate and emit exhaust emissions.</p> <p>Construction activities would involve the use of a number of construction vehicles at the CVWR and within the western salt ponds.</p> <p>Construction noise would also be generated during the installation of the new tide gate in Pond 12.</p>	<p>include the requirement that the construction contractor shall use Best Management Practices to fuel and maintain construction equipment and construction facilities. Additionally, all equipment shall meet APCD standards.</p> <p>Mitigation Measure #6 (Noise): Prior to site mobilization, a construction management plan shall be prepared which includes the following:</p> <ul style="list-style-type: none"> • All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers; • Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible; • During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers; • During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors; • Operate earthmoving equipment on 	Salt Ponds and CVWR	Monitoring will consist of adherence to plan construction management, as observed by Port and Service project managers.	Mitigation measure considered successful if construction noise is below levels of significance.	Port and Service	Throughout construction periods for tide gate and CVWR and salt ponds restoration.

EX-4

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	the construction site, as far away from vibration-sensitive sites as possible.					
Loss of 2.9 acres of salt marsh habitat at the CVWR and on the levees of the western salt ponds.	Mitigation Measure #7 (Biological Resources): The loss of high salt marsh habitat at the CVWR and on the levees of the western salt ponds is offset by the restoration of more than 15.4 acres of high salt marsh habitat throughout the project.	CVWR and salt ponds	Monitoring consists of complete monitoring program to determine vegetation coverage before and after restoration.	Mitigation considered successful if salt marsh habitat is successfully established.	Port and Service	Before and after CVWR and salt ponds construction.
Roosting opportunities available to gulls, pelicans, cormorants, and terns along the levee that separates Ponds 10 and 11 would be slightly altered by the project	Mitigation Measure #8 (Biological Resources): The monitoring plan for the overall project shall include monthly pre- and post-project monitoring of the internal levee between Ponds 10 and 11 to record avian roosting activity by species. Upon completion of the monitoring program, the monitoring results should be analyzed and described in a report to be provided to the Service's Carlsbad Fish and Wildlife Office, USFWS Region 8's Division of Migratory Bird Management, and other interested agencies and individuals for future reference in evaluating similar projects.	Western salt ponds	Monitoring consists of complete monitoring program to determine avian use before and after restoration.	Mitigation considered successful if bird use improves or is not negatively impacted.	Service	Before and after salt ponds construction.
Impacts of up to 204 square feet of salt marsh habitat in front of the new tide gate in Pond 12.	Mitigation Measure #9 (Biological Resources): Prior to completion of tide gate construction, the Service shall restore and enhance approximately 820 square feet of intertidal habitat at a site located on the Refuge along the south side of the Otay River channel, upstream of the proposed tide gate project. The specific size of the area to be restored within the proposed restoration site will be determined once the final	Pond 12 levee	Monitoring consists of vegetation survey before and after tide gate installation and a letter report documenting the completed mitigation project.	Mitigation considered successful if salt marsh habitat is successfully established through planting at mitigation site.	Service	Before and after tide gate construction.

EX.4

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>construction drawings for the tide gate have been completed and the total area of impact can be determined. The total area of mitigation will be based on a replacement ratio of 4:1 (i.e., four square feet of restoration/enhancement for every one square foot of habitat lost).</p>					
<p>Potential loss of eelgrass from pumping slurry through the Bay, breaching levees, and installing tide gate</p>	<p>Mitigation Measure #10 (Biological Resources): To mitigate the potential loss of eelgrass habitat as a result of temporarily installing a pipe across the bay, breaching the levees in Ponds 10 and 11, and installing a new tide gate in Pond 12, the Service and/or the Port will conduct pre- and post-construction eelgrass surveys in the vicinity of the proposed construction sites within 30 days of project commencement and completion to determine what mitigation, if any, is required as dictated by the Southern California Eelgrass Mitigation Policy (SCEMP, Revision 11; NMFS 1991). In accordance with the SCEMP, loss of eelgrass will be mitigated with restoration at a 1.2:1 area ratio.</p>	<p>South San Diego Bay between CVWR and salt ponds; around the outside levees of Ponds 10, 11, and 12</p>	<p>Monitoring consists of pre- and post-construction eelgrass surveys.</p>	<p>Mitigation considered successful if no eelgrass is impacted or if impacted eelgrass is mitigated according to the SCEMP.</p>	<p>Port and Service</p>	<p>Before and after CVWR and salt pond restoration</p>
<p>Potential disturbance to breeding endangered California least terns and</p>	<p>Mitigation Measure #11 (Biological Resources): Construction within the CVWR and the western salt ponds will occur during the non-nesting season between September 15 and April 1.</p>	<p>CVWR and salt ponds</p>	<p>Monitoring will consist of adherence to contract specifications and verification by the Port and Service project managers that no heavy</p>	<p>Mitigation measure considered successful if does not occur</p>	<p>Port and Service</p>	<p>Start and finish of construction periods for tide gate, CVWR, and salt ponds.</p>

EX.4

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
endangered Belding's savannah sparrows.			construction equipment is being operated between March 15 and September 1.	during nesting season.		
Potential impacts to sea turtles during slurry pumping operations.	<p>Mitigation Measure #12(Biological Resources): The following measures have been incorporated into the scope of the CVWR project and will be included on the construction specifications: 1) contractor access within the waters of San Diego Bay shall be limited to the placement and removal of and monitoring and maintenance of the dredge material pipeline; 2) the five mile per hour boating speed limit in the south bay shall be adhered to at all times; 3) the dredge pipeline shall be floated into position and removed from its temporary position across the South Bay Power Plant cooling water discharge channel during high tides when there is adequate clearance for vessel work above the bottom; 4) the dredge pipeline shall be anchored into place for the duration of work; 5) adequate clearance for turtle research vessels and turtle passage shall be ensured by sinking the dredge pipeline within the subtidal portion of the discharge channel , 6) an impingement barrier structure or rock filter shall be installed at the temporary 10-foot-wide water intake cut to prevent adult fish and</p>	San Diego Bay between CVWR and Pond 11	Monitoring will consist of adherence to contract specifications and verification by the Port that all measures intend to protect sea turtles are being implemented.	Mitigation measure considered successful if no sea turtles are adversely affected.	Port	Throughout the slurry pumping operation.

EX-4

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Restoration of the western salt ponds would alter the current use and function of the Western Salt Works site, which is eligible for listing on the National Register of Historic Places.	<p>turtles entrapment, and 7) the vessel operator shall not deploy any materials into the bay that have the potential for entangling sea turtles. Additionally, the Port shall conduct a preconstruction meeting with all construction personnel and project managers to review all measures required to be implemented to protect sea turtles.</p> <p>Mitigation Measure #13 (Cultural Resources): Prior to project construction, the Service will enter into a Memorandum of Agreement with SHPO to document past, current, and post-restoration conditions within and surrounding the affected areas of the salt works. Specific tasks associated with this documentation include:</p> <ul style="list-style-type: none"> Photographically documented the existing conditions of the project site (i.e., the levee configuration in Ponds 10, 10A, and 11, the existing tide gate in Pond 10, and the western levee of Pond 12, using 35 mm or large format black and white photographs; Assemble historic, current pre-restoration, and post-restoration aerial photographs of the affected ponds; Prepare and record a detailed description of the affected site features and their associated construction methods; and Compile the above mentioned material into a historic resource evaluation of the 	Western salt ponds	Monitoring will consist of signing a Memorandum of Agreement with the California State Historic Officer and providing documentation of salt ponds existing conditions and of the completion of interpretive materials.	Mitigation considered effective if historical importance documented accurately and the public is provided with the opportunity to learn about the salt works history.	Service	Enter into Memorandum of Agreement with SHOP and document the site prior to construction at salt ponds. Prepare and install interpretive signage within three months of project completion.

EX-4

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Potential effects to CA-SDI-5454/12,270 as a result of restoration activities in Pond 10 and 11	<p>western salt ponds and provide copies of the evaluation to the California Office of Historic Preservation and the following local repositories: Chula Vista Heritage Museum, San Diego Historical Society, and San Diego Archaeological Center.</p> <p>Mitigation Measure #14 (Cultural Resources): Within three months of project implementation, the San Diego National Wildlife Refuge Complex will develop interpretive materials including at least one interpretive panel to be installed along the Bayshore Bikeway or South Bay Birding and Walking Trail that introduces the story of the Western Salt Company.</p> <p>Mitigation Measure #15 (Cultural Resources): Prior to completion of the final restoration plans, the western edge of Pond 10 and the potential access route for haul truck between SR-75 and the northern levee of Pond 11 shall be surveyed to determine the northern and eastern site boundary of CA-SDI-5454/12,270. If it is determined that the site boundaries do extend into the pond, the restoration plans shall exclude these areas from the construction site and the construction specifications shall clearly indicated all areas in which construction activity shall be avoided. In addition, the Service shall ensure that any portions of the site that may extend into the pond are properly fenced with temporary construction fencing to ensure that no</p>	Eastern edge of SR-75 along Ponds 10 and 11	A survey and monitoring report will be prepared and submitted to the Cultural Resource Branch of the Service.	The measures will be successful if no impacts to the site occur during construction.	Service	Surveying prior to completion of final restoration plans and site protection during construction.

EX-4

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Temporary impacts to traffic circulation on public roadways would result if trucks transport material to Pond 11 during peak traffic hours.	portions of the site are inadvertently impacted by construction equipment. If the site extends into the truck access route, any surface artifacts would be collected, cataloged, and properly curated in accordance with existing regulations. In addition, be the route would be capped to prevent any disturbance to subsurface deposits. Mitigation Measure #16 (Traffic): The final construction plans and specifications for restoration at the CVWR shall state that transport of material between the CVWR and Pond 11 will only be permitted between the hours of 9:00 a.m. and 4:00 p.m. to avoid the use of roadways during peak traffic hours. <i>(For trucking option only.)</i>	Roadways between CVWR and salt ponds.	Monitoring will consist of adherence to contract specifications, as observed by the Port project manager.	Mitigation considered successful if construction vehicles are not on roadways during peak hours.	Port	While the 50,000 cubic yards of material is being transported from the CVWR to Pond 11.
Temporary impacts to traffic circulation would result from truck traffic related to the transport of material for the CVWR to Pond 11.	Mitigation Measure #17 (Traffic): The final construction plans and specifications for restoration at the CVWR shall require the preparation and implementation of a traffic control plan consistent with the guidelines and standards provided in Chapter 2 of the Caltrans Construction Manual and Section 110.7 (Traffic Control Plans) of the Highway Design Manual and approved by Caltrans, District 11 as part of a required encroachment permit.	SR-75 and Pond 11	Monitoring will consist of adherence to contract specifications and verification by the Port project manager that traffic control is being implemented.	Mitigation considered successful if all haul trucks are queued and stacked on-site and traffic control plan is adhered to.	Port	While the 50,000 cubic yards of material is being transported from the CVWR to Pond 11.

EX-4

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Potential impacts to recreational boaters.	Mitigation Measure #18 (pumping option) (Recreation): The final construction plans and specifications for restoration at the CVWR shall include a requirement to connect hazard buoys and/or signage along the alignment of the pipe that cross the bay to demarcate its location for recreational boaters.	South San Diego Bay between CVWR and salt ponds	Monitoring will consist of adherence to contract specifications and verification by the Port project manager that buoys and/or signs are in place and being maintained.	Mitigation considered successful if pipe is properly marked.	Port	During pumping phase of CVWR and salt pond construction.
Potential disruption of boating access into the south bay.	Mitigation Measure #19 (pumping option) (Recreation): The final construction plans and specifications for restoration at the CVWR shall include a requirement the Contractor provide at least one area along the proposed temporary pipeline that is sunken within the channel located adjacent to the CVWR in order to accommodate small vessels travelling through the area.	South San Diego Bay between CVWR and salt ponds	Monitoring will consist of adherence to contract specifications and verification by the Port project manager that boat access is maintained.	Mitigation considered successful if boating access is maintained while the pipeline is in place.	Port	Prior to construction period for CVWR and salt ponds.
Potential impacts to recreational boaters.	Mitigation Measure #20 (pumping option) (Recreation): Prior to construction, the Port shall prepare and distribute notices describing the location of the pipe to all personal water craft rental business located from Pepper Park south, and shall also post notices in the Notice to Mariners.	South San Diego Bay between CVWR and salt ponds	Verification by the Port project manager that notices have been disturbed and posted prior to construction.	Mitigation considered successful if boaters are properly notified of construction activity.	Port	Prior to construction period for CVWR and salt ponds.
Potential impacts to bicyclists on the Bayshore Bikeway.	Mitigation Measure #21 (trucking option) (Recreation): The final construction plans and specifications for restoration of CVWR or western salt ponds shall include a requirement that the Contractor provide flaggers and signs when trucks are present in the area.	Bayshore Bikeway near Pond 11	Monitoring will consist of adherence to contract specifications and verification by the Port project manager that traffic control is being implemented.	Mitigation considered successful if bicyclists are properly informed of eminent truck traffic.	Port	While the 50,000 cubic yards of material is being transported from the CVWR to Pond 11.

EX-4

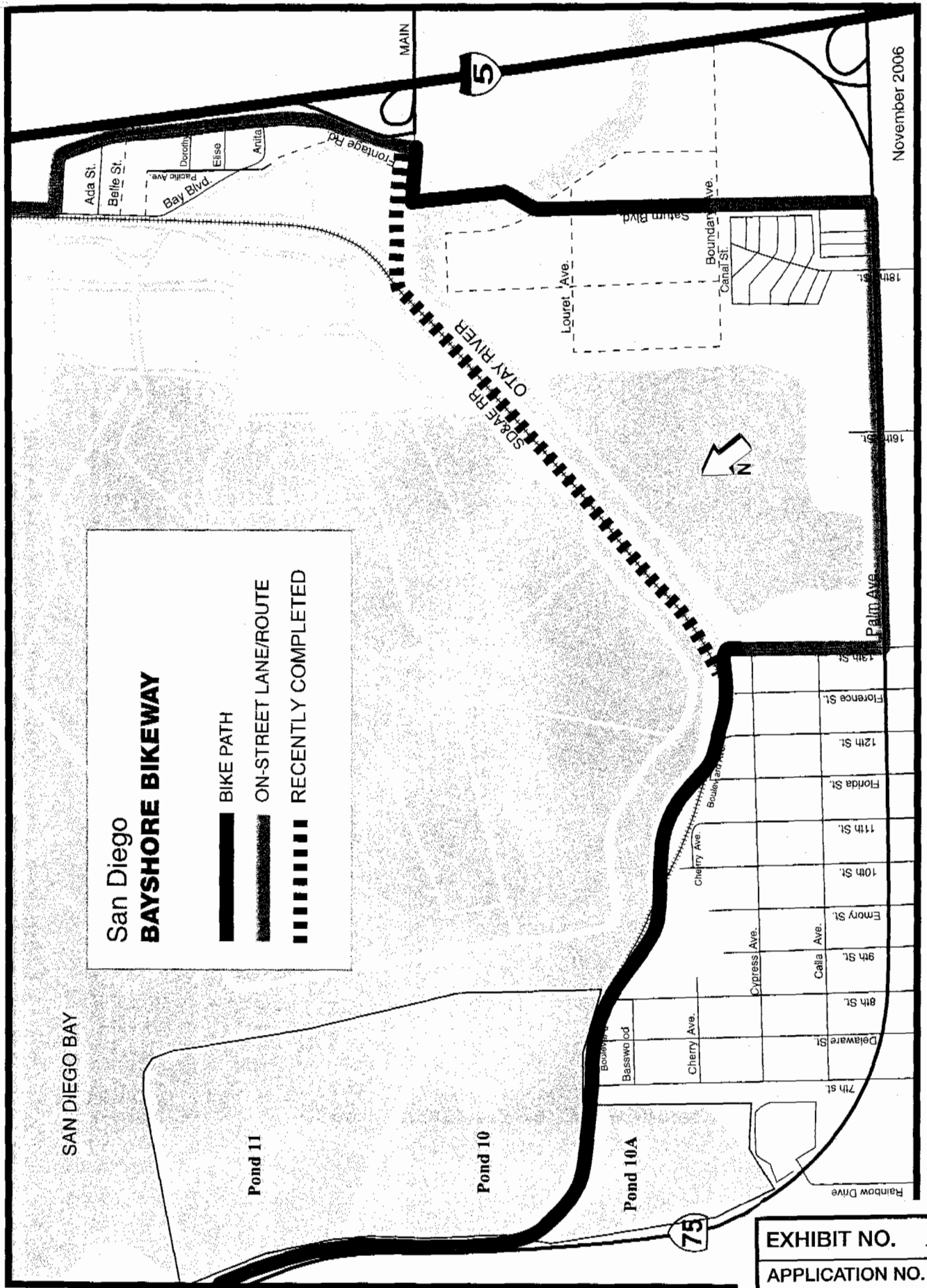


Figure C - Bayside Bikeway

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Figure D - Bayside Birding and Walking Trail

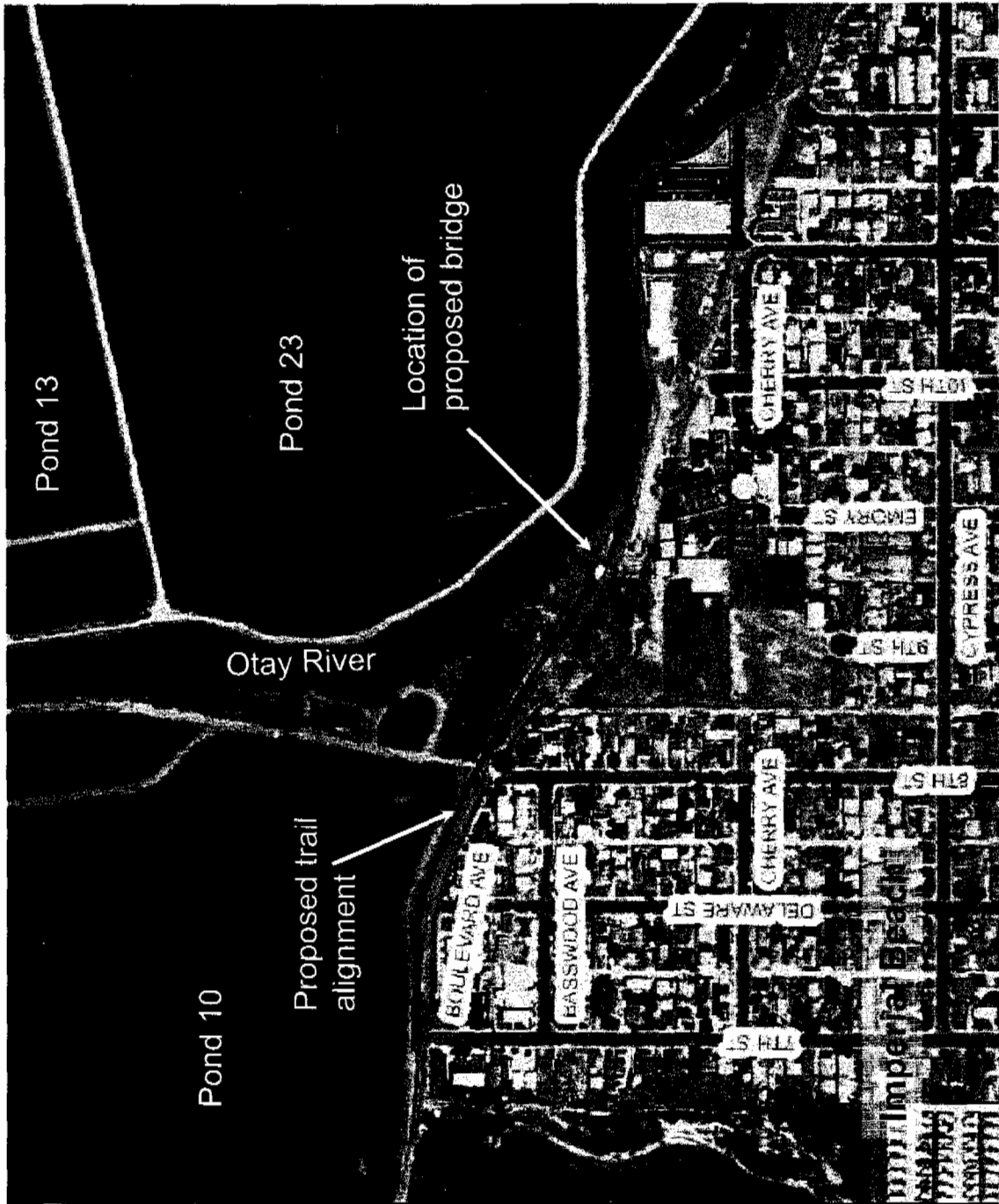


EXHIBIT NO. 6
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