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CDP Filed:	10/27/14
180th Day:	4/25/15
CC Filed:	9/2/14
6 Months:	3/2/15
Extended (Stayed to):	4/30/15
Staff:	L. Simon-SF
Staff Report:	4-1-15
Hearing Date:	4-17-15

STAFF REPORT: REGULAR CALENDAR
COMBINED COASTAL DEVELOPMENT PERMIT
AND CONSISTENCY CERTIFICATION

Application No.: **5-13-1379**

Consistency Certification No.: **CC-0003-14**

Applicants: **Orange County and City of Huntington Beach**

Agent: Kim Garvey, Moffatt & Nichol

Locations: Dredging and Waterline Installation: Sunset/Huntington Harbour, Orange Co. Nearshore Disposal: surfzone off Surfside/Sunset Beach, Orange Co. Offshore Disposal: EPA-approved LA-2 ocean disposal site offshore of San Pedro, Los Angeles Co. (**Exhibits1-2**)

Project Descriptions: CDP 5-13-1379: Maintenance dredging of up to 248,000 cubic yards of sediment from Sunset/Huntington Harbour navigation channels, disposal of dredged sediments in the Surfside/Sunset Beach surfzone, and installation of a buried waterline across the floor of the main channel.

CC-0003-14: Disposal of up to 174,000 cubic yards of suitable dredged material at the LA-2 ocean disposal site.

Staff Recommendation: CDP: Approval with conditions
CC: Concurrence

SUMMARY OF STAFF RECOMMENDATION

The County of Orange and the City of Huntington Beach jointly submitted a coastal development permit application for maintenance dredging of navigation channels in Sunset/ Huntington Harbour and disposal of dredged material in the surfzone off Surfside/Sunset Beach (proposed by the County), and for installation of a waterline underneath the main navigation channel (by the City). The dredging footprint totals approximately 30 acres and the dredging volume is estimated to be 243,000 cu.yds., all of which are suitable for disposal in ocean waters. Of this volume, approximately 69,000 cu.yds. of fine-grain sands would be hydraulically pumped via pipeline into the surfzone off Surfside/Sunset Beach for beach nourishment. The City proposes to install a 14-inch diameter waterline in an eight-foot-deep buried trench across the main harbor channel to provide redundant emergency water service to Sunset/Huntington Harbour. The County also submitted a consistency certification for disposal of up to 174,000 cu.yds. of maintenance dredged material at the LA-2 ocean disposal site six miles offshore of San Pedro. These fine-grained silts and clays are not suitable for beach nourishment. Project construction is anticipated to occur between September 2015 and March 2016.

The proposed maintenance dredging, sediment disposal plans, and waterline installation are allowable uses and there are no feasible less environmentally damaging alternatives to maintaining navigation channels and berthing areas, to disposing dredged sediments suitable for open ocean disposal, and for providing a redundant emergency water supply to Sunset/ Huntington Harbor. Mitigation measures to minimize adverse effects on coastal resources are included in the project. The staff recommends that the Commission find that the project, as conditioned, is consistent with the dredge and fill policy of the Coastal Act (Section 30233).

The project would create temporary and minor impacts to water quality, and would avoid affecting listed and special-status species due to project timing, but would lead to the permanent loss of approximately 0.372 acres of eelgrass beds in the project area. To address these impacts, the staff recommends special conditions which ensure that the loss of eelgrass is completely mitigated and which ensure that other marine resources and water quality in the project area and the LA-2 ocean disposal site would be adequately protected during the construction time period. The staff recommends that the Commission find that, as conditioned, the project is consistent with the water quality and marine resources policies of the Coastal Act (Sections 30230, 30231, and 30233).

The project-related impacts to public access and recreational boating in Sunset/Huntington Harbor, at Surfside/Sunset Beach, and at the LA-2 ocean disposal site, are temporary and less than significant, and project construction will avoid the peak summertime recreational season. The staff recommends that the Commission find that, as conditioned, the project is consistent with the public access and recreational boating policies of the Coastal Act (Sections 30210, 30213, 30220, 30221, 30224, 30234, and 30234.5).

Commission staff recommends **approval** of coastal development permit application 5-13-1379, as conditioned, and **concurrence** with consistency certification CC-0003-14.

STAFF NOTE

A coastal development permit from the Commission is required for the portion of the proposed project involving dredging, nearshore disposal, and part of the waterline installation because: (1) the dredging areas within the Cities of Seal Beach and Huntington Beach, the surfzone disposal area off Surfside/Sunset Beach, and the waterside section of the waterline installation within the City of Huntington Beach, are all located within the Commission's original area of jurisdiction; and (2) with respect to the dredging, also because of Section 13252(a)(2) of the Commission's regulations, as the project involves more than 100,000 cubic yards of dredging within a twelve-month period.

While the two landside sections of the waterline could be approved by the City of Huntington Beach under its Local Coastal Program, the City requested that the Commission process a coastal development permit for both the landside and the waterside parts of the waterline installation project pursuant to the consolidated permit processing provision of the Coastal Act. In addition, given the navigation channel dredging proposed by the County of Orange and the dredging of a cross-channel trench for the waterline installation by the City of Huntington Beach (located between two of the main channel dredging areas), both agencies agreed to submit a combined coastal development permit application to the Commission in order to obtain cost, construction scheduling, and environmental impact analysis benefits. Therefore, the standard of review for the coastal development permit application is the policies of Chapter 3 of the Coastal Act.

A federal consistency certification from the County would be required for all of the dredging and the disposal aspects of this project because: (1) this is a federally-permitted activity including transportation of sediment through the coastal zone; (2) of the potential effects of ocean disposal on marine resources of the coastal zone; and (3) the Commission's concurrence with EPA's consistency determination for the designation of LA-2 (CD-114-96) was contingent on, among other things, continuing Commission review of disposal activities at the site. However, because most of that will be covered by the permit, which serves as the effective equivalent of a concurrence with a consistency certification, the consistency certification presently before the Commission only covers that portion of the project outside the coastal zone, namely, the disposal of dredged materials at the EPA-approved LA-2 open ocean site. The standard of review for federal consistency certifications is the Chapter 3 policies of the Coastal Act.

To facilitate Commission review, the coastal development permit application and the consistency certification are addressed in a combined staff report. However, separate motions, resolutions, and votes are required for each action.

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I. MOTIONS AND RESOLUTIONS

A. COASTAL DEVELOPMENT PERMIT

Motion:

*I move that the Commission **approve** Coastal Development Permit No. 5-13-1379 subject to the conditions set forth in the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves coastal development permit 5-13-1379 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

B. Consistency Certification

Motion:

*I move that the Commission **concur** with consistency certification CC-0003-14, which concludes that the project described therein is consistent with the enforceable policies of the California Coastal Management Program (CCMP).*

Staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence in the certification 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:

The Commission hereby concurs in the consistency certification by the County of Orange in CC-0003-14, on the grounds that the project described therein is consistent with the policies of the CCMP.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgement.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS (COASTAL DEVELOPMENT PERMIT)

This permit is granted subject to the following special conditions:

1. **Post-Completion Dredging Report.** The Permittees shall submit a post-dredging and disposal completion report to the Executive Director of the Commission within 30 calendar days after completion of the project to document compliance with all general and special conditions imposed by this permit. The report shall incorporate the County's maintenance dredging and disposal operations and the City's dredging and disposal operations for the waterline installation project. The report shall include all information collected by the Permittees, the biological monitor, the dredging operations inspector and the disposal operations inspector or the disposal vessel captain as required by the special conditions of this permit. The report shall indicate whether all general and special permit conditions were met. Any failure to satisfy any requirement of the permit shall be explained in detail. The report shall further include the following information:

    A. Permit and project number.

    B. Start date and completion date of dredging and disposal operations.

    C. Total cubic yards dredged.

D. Total cubic yards disposed at the authorized disposal sites.

E. Mode of dredging.

F. Mode of transportation.

G. Form of dredged material.

H. Frequency of disposal and plots of all trips to the authorized disposal site(s).

I. Tug boat or other disposal vessel logs documenting contact with the United States Coast Guard (USCG) before each trip to the authorized ocean disposal site.

J. A certified report from the dredging site inspector indicating whether all general and special permit conditions were met. Any failure to satisfy any requirement of the permit shall be explained in detail.

K. Pre-dredging hydrographic survey.

L. A detailed post-dredging hydrographic survey of the dredging area. The survey shall show areas above the dredging design depth shaded green, areas between the dredging design depth and overdredge depth shaded yellow, areas below overdredged depth that were not dredged or areas that were deeper than the overdredge depth before the project began as indicated on the predredging survey shaded blue, and areas dredged below the overdredge depth or outside the project boundaries shaded red. The methods used to prepare the post-dredging survey shall be the same methods used in the predredging condition survey. The survey shall be signed by the Permittee certifying that the data are accurate.

2. Turbidity Control. As required by the Santa Ana Regional Water Quality Control Board under the conditions of Project No. 302014-05, the applicant shall ensure that project-related activities not cause the background natural turbidity in receiving waters to be increased by values greater than the objectives in the Santa Ana River Basin Plan at a distance of 100 feet from the project activity.

3. Construction Responsibilities. Dredging activities authorized under this permit shall comply with the following construction-related requirements:

A. No construction materials, debris, waste, oil or liquid chemicals shall be placed or stored where it may be subject to wave erosion and dispersion, stormwater, or where it may contribute to or come into contact with nuisance flow;

B. Silt curtains shall be used to minimize and control turbidity to the maximum extent practicable;

C. The discharge of any hazardous materials into the harbor or any receiving waters shall be prohibited;

D. Floating booms will be used to contain debris discharged into coastal waters, and any debris discharged will be removed as soon as possible but no later than the end of each day;

E. Non-buoyant debris discharged into coastal waters will be recovered by divers as soon as possible after loss.

4. Pre-Construction Eelgrass Survey. A valid pre-construction eelgrass (*Zostera marina*) survey shall be completed for the project area by the Permittees during the period of active growth of eelgrass (typically March through October). This pre-construction survey shall be completed prior to the beginning of construction and shall be valid until the next period of active growth. If any portion of the project is subsequently proposed to occur in a previously unsurveyed area, a new survey is required prior to commencement of work in that area. The eelgrass survey shall be prepared in full compliance with the "*California Eelgrass Mitigation Policy*" (October 2014) adopted by the National Marine Fisheries Service (NMFS) and shall be prepared in consultation with the California Department of Fish and Wildlife (CDFW). The applicant shall submit the eelgrass survey for the review and approval by the Executive Director within five (5) business days of completion of each eelgrass survey and in any event no later than fifteen (15) business days prior to commencement of any development. If the eelgrass survey identifies any eelgrass within the project area which would be impacted by the proposed project, the Permittees are required to complete a post-project eelgrass survey consistent with Special Condition No. 5.

5. Post-Construction Eelgrass Survey. If any eelgrass is identified in the project area by the survey required by Special Condition No. 4, within one month after the conclusion of construction the Permittees shall survey the project site to determine if any eelgrass was adversely impacted. The survey shall be prepared in full compliance with the "*California Eelgrass Mitigation Policy (CEMP)*" (October 2014) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Wildlife. The Permittees shall submit the post-construction eelgrass survey for the review and approval by the Executive Director within thirty (30) days after completion of the survey. If any eelgrass has been impacted, the Permittees shall prepare an eelgrass mitigation plan consistent with the *CEMP* and in consultation with the California Department of Fish and Wildlife. The mitigation plan will include provisions for replacing the impacted eelgrass at a minimum ratio of 1.2:1 (mitigation area: impact area) on-site, or at another location, in full accordance with the provisions of the *CEMP*. The exceptions to the required 1.2:1 mitigation ratio found within *California Eelgrass Mitigation Policy* shall not apply. The mitigation plan, including the location of and authorization to use the mitigation site, shall be submitted to the Executive Director for review and approval no later than 30 days prior to the scheduled commencement of the mitigation work. Implementation of the mitigation plan shall require an amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment or new permit is legally required.

6. **Construction Timing for Biological Resources Protection.** To avoid and minimize adverse impacts on California grunion, California least tern, and Western snowy plover, neither disposal pipeline placement nor surfzone disposal operations at Surfside Beach shall occur between March 1st and September 15th without a written statement from the Executive Director authorizing said development on specified dates. To obtain such a written statement, the permittees must submit a declaration from the California Department of Fish and Wildlife stating that pipeline placement and surfzone disposal between March 1st and September 15 will not cause adverse impacts to any California grunion or their eggs. The declaration must contain an assessment of the spawning of the California grunion found in the area and a statement that the proposed development between the aforementioned dates will not interfere with the spawning of the California grunion. The permittees must also submit a declaration from the U.S. Fish and Wildlife Service stating that pipeline placement and surfzone disposal between the aforementioned dates will not cause adverse impacts to nesting and foraging activities of the California least tern and Western snowy plover.

7. **Marine Mammal Protection**. To avoid and minimize adverse impacts on marine mammals, a qualified biologist will be on site during construction activities to monitor for the presence of marine mammals. The biologist will have the authority to halt construction when marine mammals are observed within 330 feet of the dredge zone and will be instructed to do so. Work crews will be briefed on how to identify sea turtles, marine mammals, and other special status species that would be expected to occur within and around the project area. The biological monitor will prepare incident reports of any observed sea turtle activity and will provide such reports to California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS) within 24 hours of an observation. Work vessels moving to and from the project site will comply with a 5 miles per hour (mph) speed limit, and as work vessels approach and leave Sunset/Huntington Harbour, a recommended speed limit of 10–15 mph will be in place. In the event of a vessel collision with a marine mammal or sea turtle, the County will immediately contact the NMFS Southwest Regional Office's Stranding Coordinator and CDFW, and will submit a report to both agencies within 24 hours of the collision.

8. **Pre-Construction *Caulerpa Taxifolia* Survey.** Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this coastal development permit (the "project"), the applicant shall undertake a survey of the project area and a buffer area at least 33 feet beyond the project area to determine the presence of the invasive alga *Caulerpa Taxifolia*. The survey shall include a visual examination of the substrate. If any portion of the project commences in a previously undisturbed area after the last valid *Caulerpa Taxifolia* survey expires, a new survey is required prior to commencement of work in that area.

   The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the National Marine Fisheries Service. Within five (5) business days of completion of the survey, the applicant

shall submit the survey: (1) for the review and approval by the Executive Director; and (2) to the Surveillance Subcommittee of the Southern California Caulerpa Action Team.

If *Caulerpa Taxifolia* is found within the project or buffer areas, the applicant shall not proceed with the project until: (1) the applicant provides evidence to the Executive Director that all *Caulerpa Taxifolia* discovered within the project and buffer area has been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act; or (2) the applicant has revised the project to avoid any contact with *Caulerpa Taxifolia*. No revisions to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

IV. APPLICANT'S CONSISTENCY CERTIFICATION

The County of Orange has certified that the proposed activity complies with the California Coastal Management Program (CCMP) and will be conducted in a manner consistent with the CCMP.

V. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

The County of Orange ("County") and the City of Huntington Beach ("City") submitted a joint coastal development permit application for maintenance dredging of navigation channels in Sunset/Huntington Harbour and disposal of dredged material in the surfzone off Surfside/Sunset Beach (by the County), and for installation of an emergency waterline underneath the main navigation channel (by the City)(**Exhibits 1 and 2**). The County also submitted a consistency certification for disposal of dredged material at the EPA-approved LA-2 ocean disposal site six miles offshore of San Pedro. The Commission concurred with EPA's consistency determination CD-114-96 for the designation of the LA-2 site in February 1997, and concurred with CD-065-05 in June 2005 for EPA's continued management of the LA-2 site.

Sunset/Huntington Harbour was constructed in the early 1960s and is located in the cities of Seal Beach and Huntington Beach. Vessel access to the Pacific Ocean is via the main channel to Anaheim Bay, underneath the Pacific Coast Highway (PCH) bridge, and between the jetties located at the mouth of Anaheim Bay. The County is responsible for maintaining the main channel between the PCH bridge and Warner Avenue at the south end of the harbor and the Sunset Aquatic Marina. The City of Huntington Beach and private homeowner groups are responsible for maintaining other parts of the harbor. The County reports that sediment deposition in the harbor occurs from flood control channels, storm drains, adjacent wetland areas (Anaheim Bay and Bolsa Chica), and littoral sediment transport through the Anaheim Bay entrance. As a result of these sediment inputs and to maintain safe navigation conditions, the County has undertaken maintenance dredging of the main navigation channel and Sunset Marina periodically over the last 35 years. The most recent maintenance dredging project occurred in 2001 when 96,000 cubic yards (cu.yds.) of sediment was removed from the entrance channel,

main channel, and Sunset Marina. As the fine-grain dredged sediments were not suitable for beach nourishment, they were disposed at the LA-2 ocean disposal site, except for 1,800 cu.yds. used for an eelgrass transplant project within the harbor.

Under the subject coastal development permit application, the County proposes maintenance dredging at the following locations (**Exhibit 3**):

- Entrance Channel east of the PCH Bridge; 69,000 cu.yds. removed to -12 feet mean lower low water (MLLW)
- Main Channel West and Main Channel Peters Landing; 58,000 cu.yds. removed to -10 feet MLLW
- Sunset Marina and Bolsa Channel; 47,000 cu.yds. removed to -9 feet MLLW (marina) and -10 feet MLLW (channel)
- Bolsa Sediment Trap; 10,000 cu.yds removed to -15 feet MLLW
- Main Channel East; 59,000 cu.yds. removed to -10 feet MLLW

The dredging area footprint totals approximately 30 acres. The total maximum quantity of dredged material includes a 25% contingency to account for additional sediment deposition that has likely occurred subsequent to the 2013 condition survey, and an allowance for two feet of possible overdredge beyond the design depths. The total amount of maintenance dredging is estimated to be no more than 243,000 cu.yds. The County proposes to hydraulically pump the estimated 69,000 cu.yds. of dredged sediments from the entrance channel into the surfzone at the west end of Surfside/Sunset Beach (**Exhibit 4**). The pipeline would be submerged and/or on top of the water and land from the entrance channel, under the PCH bridge, and across the beach at the foot of the south jetty. These sediments are fine-grain sands with a silt content less than 20% by volume, and while this material is not suitable for direct beach placement due to grain-size characteristics, it is suitable for surfzone placement. Wave action and natural transport will sort the sediments and allow for sandy materials to nourish the adjacent beach. The remaining 174,000 cu.yds. of dredged materials would be placed in bottom-dump barges and disposed at the LA-2 ocean disposal site six miles offshore of San Pedro (**Exhibit 2**). These fine-grain sediments are unsuitable for beach nourishment.[1] The County states that dredging will likely use clamshell, excavator, or cutter/suction head dredges or a combination of equipment depending on the specific area to be dredged.

[1] Approximately 13,500 cu.yds. of dredged sediments from the Main Channel West that are designated for LA-2 disposal may alternatively be used by the U.S. Fish and Wildlife Service as part of a pilot project for salt marsh habitat restoration in the Seal Beach National Wildlife Refuge, located immediately east of the harbor entrance channel. The Service is preparing a consistency determination for the pilot restoration project, including the use of dredged harbor sediments, and anticipates submitting that document to the Commission in mid-2015.

The City proposes to install a 14-inch diameter waterline in a buried trench across the main channel in order to provide redundant fire emergency water services for the City (**Exhibits 3 and 5**). The existing 12-inch-diameter ductile iron waterline that crosses the main channel is approximately 40 years old, is approaching the end of its design life, and runs the risk of corrosion and failure. The City states that:

> *. . . the Huntington Harbour area requires a redundant pipeline for fire protection purposes since only a single water line in the area interconnects two regions that are separated by the harbor main channel . . . The City proposes to construct a 14-inch (outer diameter) pipeline to serve as a backup to the existing 12-inch waterline. The proposed pipeline will not increase service capacity or induce further growth since the north and south regions are essentially built out and would not result in any measurable increase in water consumption.*

The proposed waterline would connect existing waterlines along Typhoon Lane on the north side of the channel and along Grimaud Lane on the south side. The combination high density polyethylene and ductile iron pipeline will penetrate through the bulkhead wall on the Typhoon Lane side and come ashore under the existing sandy beach on the Grimaud Lane side. The waterside segment of the pipeline is approximately 510 feet in length, and the two landside segments total 250 feet. Installation of the waterline will require dredging an approximately 50-foot-wide by 8-foot-deep trapezoidal-shaped trench across the channel bottom. Approximately 5,000 cu.yds. of sediments excavated from the trench will be placed on either side of the trench on the channel bottom. The waterline pipe will be pulled into the trench from a barge using weighted anchors. The pipe will then be covered with a foot-thick layer of concrete and the remaining portion of the trench backfilled with the excavated sediments. Any excess excavated materials will be placed with sediments transported to LA-2.

The project also includes mitigation to compensate for unavoidable loss of eelgrass beds from the proposed maintenance dredging and waterline construction (currently estimated at 0.372 acres). The final location and size of the mitigation site will be determined based on required pre- and post-construction eelgrass surveys. The eelgrass mitigation project to be implemented by the County and the City will conform to the guidelines in the November 2014 *California Eelgrass Mitigation Policy*, which builds on and supersedes the *Southern California Eelgrass Mitigation Policy* (established in 1991).

The construction staging area for the maintenance dredging will be at the Sunset Marina, and work boats will moor overnight at the marina. Construction staging for the waterline project will be along Grimaud Lane, Typhoon Lane, Venture Drive, and within the city park at the end of Typhoon Lane. Construction is scheduled to commence in September/October 2015 with completion expected by March 2016.

B. DREDGING AND FILLING

Section 30233 of the Coastal Act states, in part:

> *(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:

. . .

(2) Maintaining existing, or restoring previously dredged, depths in existing navigation channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

. . .

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

. . .

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

The proposed maintenance dredging and disposal project, and the proposed waterline installation, need to be examined for consistency with Section 30233 of the Coastal Act. Under this section, dredging and filling of open coastal waters is limited to those cases where the proposed project is an allowable use, is the least damaging feasible alternative, and where mitigation measures are provided to minimize environmental impacts. The maintenance dredging of existing navigation channels and berthing areas in Sunset/Huntington Harbour is an allowable use under Section 30233(a)(2). Without periodic maintenance dredging, use of the channels and berthing areas in the harbor would be constricted and eventually unusable for recreational boating. There is no feasible alternative to the proposed dredging, and dredging footprints have been modified by the County to reduce the area of eelgrass impacts from 1.639 acres to the current 0.372 acres.

LA-2 is an EPA-approved ocean disposal site, and placement here is the least damaging alternative for disposal of clean, fine-grained dredged materials, which are not suitable for beach replenishment due to grain size incompatibility and for which other beneficial reuse is not currently feasible. The proposed disposal of fine-grained sands in the surfzone at Surfside/Sunset Beach, and the disposal of fine-grained silts and clays unsuitable for beach nourishment but suitable for placement at the LA-2 disposal site, are the least damaging feasible alternatives for disposal of project dredged materials. Analysis of the sediment characterization testing completed by the County which supports this conclusion is presented in the following section of this report.

The purpose of the waterline project is to provide a redundant water supply to Huntington Harbour and Sunset Beach for fire protection purposes. This project element includes dredging to create the trench across the main channel (with excavated sediments placed adjacent to the trench) and filling to place the pipeline, the concrete cap, and the excavated sediments back into the trench. The proposed waterline installation across the bottom of the harbor main channel is an allowable use under Section 30233(a)(4). The City evaluated the four locations where waterlines currently cross beneath Huntington Harbour to determine which crossing was the most critical for providing a reliable and redundant water supply connection. The City determined that the existing waterline that crosses the main channel near Peter's Landing serves the largest number of parcels as compared to the other three waterline crossings, and that this waterline requires a back-up connection. The City next evaluated potential waterline routes located near the existing pipeline. Given the built-out nature of the upland area and the presence of eelgrass in the main channel, and given the reluctance of private property owners to dedicate a 10-foot-wide water utility easement to the City, the City determined that the only feasible route across the channel was between the existing public park areas at either side of the channel just upstream of the existing waterline crossing. While this route will require trenching through an eelgrass bed on the west side of the channel, there are no other feasible less environmentally damaging alternatives.

As discussed in the following sections of this report, mitigation measures are incorporated into the project where necessary to protect coastal resources from potential impacts arising from the proposed dredging, disposal, and waterline installation activities. In addition, special conditions attached to this coastal development permit are designed to further ensure that the project will not adversely affect coastal resources. In order to verify the effectiveness of these measures and conditions, the Commission imposes **Special Condition No. 1**, which requires the applicants to submit a post-dredging and disposal completion report to the Executive Director that documents compliance with all standard and special conditions attached to this permit to ensure protection of coastal resources in proximity to the project area and the LA-2 ocean disposal site. Therefore, and as conditioned, the Commission finds that the proposed maintenance dredging, disposal, and waterline project is consistent with the allowable use, alternatives, and mitigation tests contained in the dredge and fill policy of Coastal Act Section 30233.

C. WATER QUALITY AND MARINE RESOURCES

Section 30230 of the Coastal Act states:

> *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. Use 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 of the Coastal Act states:

> *The biological productivity and the quality 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 30233 of the Coastal Act states, in part:

(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:

. . .

(2) Maintaining existing, or restoring previously dredged, depths in existing navigation channels, turning basins, vessel berthing and mooring areas, and boat launching ramps

. . .

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

. . .

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

Sediment Testing and Suitability Determination. The proposed project includes maintenance dredging by the County of Orange of seven individual areas within Sunset/Huntington Harbour, and dredging of a trench across the bottom of the main channel by the City of Huntington Beach for installation of a water pipeline for redundant fire protection. The coastal development permit application and consistency certification provide the results from sediment grain size and sediment chemistry testing of the proposed dredged materials. Project sediments were tested (following standard guidance from the Ocean Testing Manual (USEPA/USACE, 1991)) for suitability for surfzone disposal at Surfside/Sunset Beach, habitat restoration in the Seal Beach National Wildlife Refuge, and disposal at the LA-2 ocean disposal site. The Sampling and Analysis Plan (SAP) was reviewed by the Southern California Dredged Material Management Team (SCDMMT, which includes the Commission staff) at its November 20, 2003, meeting. Modifications to the SAP were suggested by the SCDMMT and agreed to by the project

applicants. Sediment sampling at 24 locations within Sunset/Huntington Harbour was undertaken in January 2014; surface materials were also collected at that time from the LA-2 reference area and from three locations in the Seal Beach NWR. In addition, grain size characteristics for Surfside/Sunset Beach were derived from a previous Corps of Engineers report for this shoreline area.

The test results concluded that:

- Sediments from the Entrance Channel are physically compatible for placement directly on, in the surf zone, or in the nearshore area at Surfside/Sunset Beach. Contaminant concentrations are low compared to human health screening levels, with the exception of arsenic, which is not elevated above background levels.

- Contamination in the sediments was not severe enough to cause any statistically significant benthic toxicity or mortality that exceeded Ocean Testing Manual limits. There was, however, some water column toxicity or mortality, but initial mixing calculations showed that the Limiting Permissible Concentration would not be exceeded. There was also statistically significant and relevant bioaccumulation of lead, DDTs, chlordane, and PCBs in the test tissues exposed to some of the sediments. Although statistically significant, numerous mean tissue concentrations were still relatively low compared to reference tissue concentrations, and these levels were determined to represent minimal threat to the marine benthic environment at LA-2. Therefore, the harbor sediments tested for open water placement should be suitable for placement at LA-2.

- Some organic contaminants were elevated in some of the composite samples when compared to soil background and reference sample concentrations for the Seal Beach NWR. However, the harbor sediments were found not to be toxic to amphipods and polychaete worms. Adverse impacts to the benthic community from beneficially reusing the sediments for habitat restoration in the Seal Beach NWR or in an eelgrass mitigation project in Sunset/Huntington Harbour are not predicted.

The sediment testing results and suitability determinations were reviewed by the SCDMMT at its May 28, 2014, meeting. The SCDMMT, including staff representatives from USEPA, Regional Water Quality Control Board, and the Commission, concurred with the suitability determinations for the proposed disposal of dredged sediments from Sunset/Huntington Harbour at the LA-2 ocean disposal site, in the surfzone off Surfside/Sunset Beach, and in the Seal Beach NWR, and for temporary sidecasting of excavated trench materials for the proposed waterline installation. The sediment grain size analysis concluded that except for the main channel materials to be placed in the surfzone off Surfside/Sunset Beach, none of the project sediments were suitable for beach nourishment due to their fine-grained composition. The Commission finds that based on the project sediment testing results, the proposed dredged material disposal plans are consistent with previous Commission approvals and authorizations, maximize beneficial reuse of dredged sediments to the extent practicable, and will not adversely affect water quality or marine resources in and adjacent to the project area and the LA-2 ocean disposal site.

Water Quality Protection. While the dredged sediments are suitable for placement at the three aforementioned locations, proposed dredging and disposal activities nevertheless hold the potential to affect water quality at the dredging and disposal sites, primarily through increases in turbidity. Temporary increases in turbidity will occur in the dredging areas within the harbor, at the surfzone discharge area, and at LA-2. The applicants report that the proposed project includes water quality control measures and best management practices designed to minimize turbidity increases and to protect water quality at dredging and disposal locations. These water quality protection measures are described in the project *Sunset/Huntington Harbour Marine Biological Resources Report* (April 2014). The project also includes the following mitigation measures:

- Prior to initiation of dredging activities, the applicant is required to receive approval from the Santa Ana Regional Water Quality Control Board for coverage under a 401 Certification. The 401 Certification will include conditions involving implementation of measures to reduce potential increases in sedimentation, turbidity, and other impacts associated with maintenance dredging activities.

- Prior to initiation of dredging activities, the applicant will include the use of a silt curtain or silt fence system during dredging. The system must be placed so as to confine the disturbed waters within the area. The system will be lined with bright orange buoys to create a visual detour barrier for boating traffic during construction. The silt curtains will remain in-place until the disturbed sediment has resettled and will be stabilized within the channel bed.

- Turbidity will likely result from placement of dredge material in the Surfside/Sunset Beach surfzone. The effects of turbidity will be mitigated by appropriate turbidity monitoring methods. This involves a qualitative monitoring program (daily observations from a higher vantage point) and supplemented by a quantitative program if necessary. If visual monitoring (qualitative monitoring) indicates significant turbidity greater than ambient one-half mile from the discharge site (either offshore or downcoast) for two consecutive days, then the monitor will:

    - Evaluate littoral conditions (wind, tide, wave climate, and littoral drift) to determine if the plume distribution is likely of a short-term nature;

    - Evaluate the effectiveness of discharge site BMPs and opportunities to modify shore placement methods to further reduce sediment discharge during periods of strong longshore movement;

    - Record and implement the necessary modifications to the BMPs;

    - Notify the Santa Ana Regional Water Quality Control Board and USACE contacts by telephone or email; and

    - Document how the discharger will comply with any measures identified by the RWQCB, in consultation with other responsible agencies, as appropriate, to mitigate project-related turbidity, including modifying or halting discharge.

- If significant turbidity persists on the third day, the monitor will commence the quantitative monitoring program.

On February 19, 2015, the County of Orange received its Clean Water Act Section 401 Water Quality Standards Certification from the Santa Ana Regional Water Quality Control Board for the proposed project. The Board stated that the project will comply with state water quality standards outlined in the *Water Quality Control Plan for the Santa Ana River Basin* (1995, the *Basin Plan*) and subsequent Basin Plan amendments. The certification states that the project includes water quality mitigation measures including: (1) standard best management practices during construction; (2) creation of eelgrass beds to mitigate the loss of eelgrass from dredging impacts, in accordance with the Southern California Eelgrass Mitigation Policy; and (3) other special conditions designed to protect water quality at and adjacent to the project area.

The Commission has previously found in similar coastal development permit applications and federal consistency submittals that the potential water quality impacts associated with dredging and disposal are not significant and typically do not require additional mitigation measures beyond those proposed by the applicant and required by the Regional Water Quality Control Board. Placement of suitable dredged materials at the LA-2 ocean disposal site is monitored by the USEPA and that agency has determined that ongoing disposal projects are not generating any significant adverse effects to ocean water quality. However, to ensure that the proposed project will protect water quality during the construction time period, the Commission has imposed **Special Conditions 2 and 3** which include measures to control turbidity and prevent the discharge of construction materials into the waters of the project area. The Commission finds that the proposed project, as designed by the applicants, conditioned by the Regional Water Quality Control Board, and conditioned by the Commission will not significantly affect coastal water quality in Sunset/Huntington Harbour, in the surfzone off Surfside/Sunset Beach, or at the LA-2 ocean disposal site.

Eelgrass. Eelgrass (*Zostera marina*) is a marine plant that grows in soft sediments within coastal bays and estuaries, and functions as critically important habitat for fish, benthic organisms, and other wildlife, and as a foraging area for seabirds. The *Marine Biological Resources Report* (April 2014) for the proposed project states that eelgrass has been documented in the Sunset and Huntington Harbour complex since the early 1980s. The *Report* also states that previous Orange County maintenance dredging projects in the harbor required mitigation for eelgrass impacts and that the mitigation projects located near the entrance channel were deemed successful at the end of their five-year monitoring programs. Diver and bioacoustic surveys to identify and map eelgrass beds in and adjacent to the project area were carried out between September and December 2013 and encompassed 93 acres of seafloor.

A total of 4.45 acres (193,873 square-feet) of eelgrass was mapped during the survey. Approximately 96% of the mapped eelgrass was located in Outer Sunset Harbor (along the West, North, and East banks of the entrance channel) and along the north bank of the Sunset Aquatic Park Access Channel. The remaining 4% of the mapped eelgrass is located primarily in patches in the Sunset Aquatic Park marina, in the outer half of the Bolsa Channel, and at the southwest

terminus of the waterline route. Eelgrass density was highest in outer Sunset Harbor and lowest at the waterline project area.

The initial design of the dredging footprint resulted in approximately 1.6 acres of eelgrass habitat loss. Eelgrass losses would occur from maintenance dredging that deepens the bayfloor to depths (between -9 and -18 feet mean lower low water) beyond the normal depth range for eelgrass survival. The dredging footprint was then modified by the County in 2014 to reduce the eelgrass impact area to 0.79 acres. In January 2015, after another on-water reconnaissance of the project navigation channels, County Parks and the County Harbor Patrol agreed to further reduce the project dredging footprint, which correspondingly reduced eelgrass habitat losses to 0.372 acres, or approximately 16,196.7 square-feet (**Exhibit 6**). Eelgrass losses would occur along the east bank of the entrance channel (10,075 sq.ft.), in the Bolsa Channel (2,953.5 sq.ft.), in Sunset Aquatic Park Marina (2,129.2 sq. ft.), and at the waterline project site (1,039 sq.ft.).

The Commission has consistently recognized the value of and the need to protect eelgrass habitat in the coastal zone. When projects reviewed by the Commission will adversely affect and/or eliminate eelgrass habitat, the Commission first requires that efforts be made by the applicant to avoid and minimize to the extent feasible impacts to eelgrass. Any unavoidable impacts must then be mitigated to ensure there is no net-loss of eelgrass from the project. The Commission has historically conditioned coastal development permits to prepare an eelgrass mitigation plan that substantially conforms with the National Marine Fisheries Service's (NMFS) *Southern California Eelgrass Mitigation Plan* (*SCEMP*, 1991, as amended) and more recently to the NMFS' *California Eelgrass Mitigation Plan* (*CEMP*, 2014). NMFS states that the success of the *SCEMP* in protecting eelgrass and ensuring no net-loss of this habitat led the agency in 2014 to extend this plan statewide (*CEMP*), with minor modifications.

The *CEMP* states that when impacts to eelgrass will occur, the project proponent should develop a mitigation plan to achieve no net-loss in eelgrass function. Effects to eelgrass habitat should be assessed using pre- and post-project surveys of the impact area and appropriate reference sites conducted during the time period of maximum eelgrass growth, typically March through October in southern California. The *CEMP* next reviews mitigation options, including comprehensive management plans, in-kind mitigation, mitigation banks and in-lieu-fee programs, and out-of-kind mitigation. Regarding in-kind mitigation, the *CEMP* states that:

> *In-kind compensatory mitigation is the creation, restoration, or enhancement of habitat to mitigate for the adverse impacts to the same type of habitat. In most cases, in-kind mitigation is the preferred option to compensate for impacts to eelgrass. Generally, in-kind mitigation should achieve a final mitigation ratio of 1.2:1 across all areas of the state, independent of starting ratios.*
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> *Typically, in-kind eelgrass mitigation involves transplanting or seeding of eelgrass into unvegetated habitat. Successful in-kind mitigation may also warrant modification of physical conditions at the mitigation site to prepare for transplants (e.g., alter sediment composition, depth, etc.). In some areas, other in-*

> *kind mitigation options such as removing artificial structures that preclude eelgrass growth may be feasible.*

The *CEMP* further states that:

> *In identifying potentially suitable mitigation sites, it is advisable to consider the current habitat functions of the mitigation site prior to mitigation use. In general, conversion of unvegetated subtidal areas or disturbed uplands to eelgrass habitats may be considered appropriate means to mitigate eelgrass losses, while conversion of other special aquatic sites (e.g., salt marsh, intertidal mudflats, and reefs) is unlikely to be considered suitable. It may be necessary to develop suitable environmental conditions at a site prior to being able to effectively transplant eelgrass into a mitigation area. Mitigation sites may need physical modification, including increasing or lowering elevation, changing substrate, removing shading or debris, adding wave protection or removing impediments to circulation.*

The *CEMP* states that an eelgrass mitigation plan in southern California should address the following components to ensure no net-loss of eelgrass habitat function:

- Mitigation of eelgrass habitat should be based on replacing eelgrass habitat extent at a ratio of 1.2 (mitigation area) to1.0 (impact area).

- For mitigation that occurs concurrent to the action resulting in damage to existing eelgrass habitat, a starting ratio of 1.38 to 1.0 (transplant area to vegetated cover impact area) should be recommended to counter regional failure risk and the time lag between habitat loss and successful mitigation.

- Impacts to the density of the eelgrass bed must be factored into the mitigation plan.

- The mitigation plan should include a description of the project area, results of the preliminary eelgrass survey, the pre-and post-project surveys when completed, description of eelgrass impacts, description of mitigation site and methods, construction schedule, monitoring plan, performance and success measures, and alternative contingent mitigation and adaptive management should mitigation not achieve performance measures.

- Mitigation timing, monitoring, performance milestones, reporting, and supplemental mitigation.

The eelgrass mitigation plan proposed by the County is outlined in the *Sunset/Huntington Harbour Marine Biological Resources Report* (April 2014), and as updated in a March 10, 2015, electronic communication from the County's representative to the Commission staff. The plan includes the commitment that eelgrass vegetation loses shall be mitigated at a 1.2 to 1 ratio (mitigation to impact ratio) such that the loss of 0.372 acres of eelgrass will be mitigated with the successful creation of a 0.446-acre mitigation site, and that the mitigation plan will be conducted

in accordance with the *SCEMP* (NMFS, 1991 as amended through August 2005). The plan also includes provisions for transplanting eelgrass from impact areas to the mitigation site, ensuring the genetic diversity of transplanted eelgrass, transplanting methods and timing, pre- and post-construction eelgrass surveys to calculate the amount of mitigation required, transplant monitoring surveys, supplemental transplanting (if necessary), monitoring reporting, mitigation success criteria, and remediation and contingency plans for unsuccessful eelgrass mitigation.

The County subsequently adopted a more open-minded commitment in its *Mitigated Negative Declaration* (August 2014, as adopted by the Orange County Board of Supervisors on January 27, 2015), which includes the following biological mitigation measure pertaining to eelgrass impacts and mitigation:

> *Eelgrass surveys will be conducted prior to proposed dredging activities, and again after dredging is completed, consistent with the timing requirements listed in the Southern California Eelgrass Mitigation Policy (NMFS 1991 as amended). All existing and potential eelgrass habitat loss will be restored at a ratio of 1:1.2 and 1:1, respectively* [impact area to mitigation area], *or via other measures as approved by the appropriate regulatory and resource agencies. Eelgrass will also be transplanted into the mitigation site from approved donor sites and monitored by qualified biologists for 5 years to ensure success. Yearly monitoring reports will be filed with resource agencies, the USACE, and the California Coastal Commission. If yearly criteria are not met, then a replant will be conducted. The amount to be replanted is based upon a formula that takes into account the area and/or density deficiencies (NMFS 1991 as amended).*

Initially the County proposed to undertake any required eelgrass mitigation at a site on U.S. Navy property adjacent to a previous eelgrass mitigation site established by the County between Pacific Coast Highway and the west edge of the main channel. However, the County states that it was informed by the Navy in 2014 that the County can no longer create mitigation sites at that location due to current federal policy. The County then proposed an eelgrass mitigation site adjacent to "Tern Island" on the eastern side of the main channel, north of the Sunset Marina Access Channel, and shoreward of existing eelgrass beds. However, this site would require excavation of a portion of a mudflat area to lower the site elevation to provide appropriate elevation for eelgrass habitat, which would conflict with the aforementioned *CEMP* policy that "conversion of other special aquatic sites (e.g., salt marsh, intertidal mudflats, and reefs) is unlikely to be considered suitable" mitigation for eelgrass impacts. The County is now working with the National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) to identify and analyze potential options for mitigating and minimizing eelgrass losses from the project. These options include finding an offsite eelgrass mitigation site; using an in-lieu fee instrument; working with the Navy to set-up a Navy-owned eelgrass mitigation bank on Navy property with the County acquiring mitigation credits from that bank; management actions within Sunset/Huntington Harbour to improve protection of existing eelgrass beds; and marsh restoration work in the Seal Beach NWR.

Thus, while the County and City remain fully committed to mitigate all project-related eelgrass impacts in a manner consistent with the long-standing and successful provisions of the *CEMP*,

the actual location of the eelgrass mitigation project for the subject maintenance dredging activities has yet to be determined. Therefore, the Commission imposes **Special Conditions Nos. 4 and 5** which identify the eelgrass protection procedures that must be completed prior to the start of any project construction. These conditions require the applicants to conduct pre-construction and post-construction eelgrass surveys, to submit the results of those surveys to the Executive Director in a timely manner, to prepare an eelgrass mitigation plan consistent with the *CEMP*, and to submit that plan to the Executive Director for review and approval no later than 30 days prior to the start of eelgrass mitigation work. These conditions will ensure that all impacts to eelgrass in the project area will be accurately quantified and appropriately mitigated, that the applicants will have successfully concluded their ongoing consultation process with the CDFW and NMFS to determine the appropriate mitigation project, and that the Executive Director will, prior to construction, be able to confirm that the provisions of the *CEMP* are incorporated into the final eelgrass mitigation plan. As conditioned, the proposed project will not result in significant adverse impacts to eelgrass beds in Sunset/Huntington Harbour.

Other Marine Resources. The *Sunset/Huntington Harbour Marine Biological Resources Report* (April 2014), the *Marine Biological Resources Assessment, Surfside-Sunset Beach, Beach Nourishment Project* (July 2014), and the *Initial Study/Mitigated Negative Declaration* (August 2014, as adopted by the Orange County Board of Supervisors on January 27, 2015) contain information on marine resources found in and adjacent to the project area, potential project-related impacts, and proposed avoidance, minimization, and mitigation measures that will be adopted by the County and City. The *Sunset/Huntington Harbour Marine Biological Resources Report* states that:

> *There are no State or Federal Marine Protected Areas within the project area. The nearest State MPAs are the Bolsa Chica Bay State Marine Conservation Area and the Bolsa Basin State Marine Conservation Area located southeast of Surfside-Sunset Beach (Figure 3)* **[Exhibit 7]**. *The nearest Federal MPA is the Seal Beach National Wildlife refuge located northeast of Surfside-Sunset. It encompasses 911 acres of remnant saltwater marsh in the Anaheim Bay estuary and serves as a significant stopover and wintering area along the Pacific Flyway for shorebirds.*

The *Initial Study/Mitigated Negative Declaration* provides the following:

> *Although no sensitive marine species were observed during surveys by CRMI in their 2013 study, marine animals, such as California sea lions, California gray whales, and bottle nosed dolphins, are known to occur in the area of the project site. In addition, sea turtle tagging data indicates that sea turtles use the Harbour (e.g., the leatherback sea turtle, threatened green sea turtle, loggerhead sea turtle, and olive ridley sea turtle). Dredging activities do pose a potential impact for these species and implementation of Mitigation Measure BIO-3 would reduce potential adverse impacts to less than-significant levels. The tidewater goby and California halibut would not be impacted by the Maintenance Dredging activities and no mitigation is required; however, Coastal Sand Dunes (Coastal Strand) and Ruderal vegetation at the beach nourishment site could provide nesting and*

breeding sites for the least tern and western snowy plover. While there are no least tern nesting sites on the project site and it is not likely that the western snowy plover would nest where the beach nourishment activities would occur, there is the potential for beach nourishment could impact coastal strand habitat and impact two special-status species (the least tern and western snowy plover). Impacts are considered to be less than significant with incorporation of Mitigation Measure BIO-4. Also, if construction activities were to occur between March and August, beach nourishment actions would potentially impact California grunion. As such, Mitigation Measure BIO-5 would be required to reduce impacts to a level below significance.

The mitigation measures cited above are as follows:

Mitigation Measure BIO-3: *A qualified biologist will be on site during construction activities to monitor for the presence of wildlife and sensitive species in particular. The biologist will have the authority to halt construction when wildlife is observed within 100 meters of the dredge zone. Work crews will be briefed on how to identify sea turtles, marine mammals and other special status species that would be expected to occur within and around the project area. The biological monitor will prepare incident reports of any observed sea turtle activity and will provide such reports to California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS) within 24 hours of an observation. Work vessels moving to and from the project site will comply with a 5 miles per hour (mph) speed limit. As work vessels approach and leave Sunset Harbor and Huntington Harbour, a recommended speed limit of 10–13 knots will be in place. In the event of a vessel collision with a marine mammal or sea turtle, the County will immediately contact the NMFS Southwest Regional Office's Stranding Coordinator and CDFW, and will submit a report to the NMFS within 24 hours. This measure will mitigate impacts to other species of wildlife as well.*

Mitigation Measure BIO-4: *Prior to the issuance of construction permits, the County will conduct the following surveys subject to review by the CDFW, United States Federal Wildlife Service, and the United States Navy:*

- *A pre-construction pipeline route survey. A qualified biologist will accompany County of Orange staff and engineering consultants to identify sensitive wildlife habitat and to recommend a pipeline route that avoids impacts to sensitive vegetation, wildlife habitat, and potential Western snowy plover nesting habitat. This survey will be conducted within 30 days of pipeline installation start and will be submitted to the County within five days of completion. If it is not possible for the pipeline route to avoid the backshore area and the pipeline is to be in place during the Western snowy plover nesting season (March through September), then two additional surveys will be required:*

- *A focused pre-construction nesting bird survey. A qualified biologist will conduct a nesting bird survey within 100 meters of the pipeline corridor five days prior to the start of pipeline installation.*

- *A focused post-construction nesting bird survey. A qualified biologist will conduct a nesting bird survey within five days of pipeline removal to determine if any nesting birds may be impacted by pipeline removal. If it is determined that nesting birds are present, then the pipeline shall remain in place until nesting activity is no longer observed.*

Mitigation Measure BIO-5: *Should pipeline construction, operation, or post-project demobilization occur during the grunion spawning season (as defined by the California Department of Fish and Wildlife grunion calendar), the County of Orange shall prepare and implement a beach nourishment grunion habitat protection plan to include:*

1. *Temporal BMPs, such as avoidance of known spawning area during grunion runs to avoid disturbances to grunion spawning activity and to minimize damage to grunion spawning habitat;*

2. *Conduct pre-construction monitoring surveys within 3 weeks of proposed construction to determine the potential for grunion to use Surfside-Sunset beaches during beach nourishment activities;*

3. *Conduct grunion monitoring during known grunion run periods while beach nourishment activities are in progress to assess if specific areas of the beach are being impacted;*

4. *Implement avoidance measures, if feasible, to minimize impacts to specific areas of the beach if construction-period spawning is observed; and*

5. *Conduct post-beach nourishment grunion spawning success monitoring surveys at any sites on Surfside-Sunset beaches that appear to be impacted by beach nourishment activity. The survey will be conducted during the first grunion run following completion of the nourishment activities. The survey results will be included in a report that be submitted to the County of Orange, the National Marine Fisheries Service, California Department of Fish and Wildlife, and California Coastal Commission within 30 days after the grunion run.*

The Commission notes that because the project is scheduled for construction between September 2015 and March 2016, it will avoid the California grunion spawning season and the California least tern and Western snowy plover nesting seasons and not generate adverse effects on these sensitive species. Nevertheless, should unexpected circumstances cause delays in completing project dredging and surfzone disposal, and in order to ensure protection of sensitive marine

resources in the event of such delays, the Commission imposes **Special Condition No. 6** which identifies the California grunion, California least tern, and Western snowy plover protection policies that will be implemented should project development occur between March 1st and September 15. This condition requires the applicants to submit to the Executive Director documentation from the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service that project activities occurring between those dates are designed to protect and will not adversely affect California grunion, California least tern, and Western snowy plover. To ensure that the marine mammal protection policies outlines in the project Mitigated Negative Declaration are implemented by the applicants during project construction activities, the Commission imposes **Special Condition No. 7** which describes those required protection policies, including the employment of marine mammal monitors, education for construction personnel, incident reporting, and vessel speed limits. As conditioned, the proposed project will not result in significant adverse impacts to sensitive marine resources in and adjacent to the Sunset/Huntington Harbour project area.

Caulerpa Taxifolia. The invasive algae *Caulerpa taxifolia* has the potential to create ecosystem-level impacts on California bays and nearshore waters due to its extreme ability to out-compete other algae and seagrasses. The *Sunset/Huntington Harbour Marine Biological Resources Report* (April 2014) states that this invasive algae was introduced into southern California in 2000 at Agua Hedionda Lagoon (San Diego County) and Huntington Harbour. While outbreaks have been contained, it has been the policy of the various involved resource agencies to ensure that projects that have the potential to spread this species through dredging and bottom-disturbing activities conduct pre-construction surveys to determine if this species is present. If it is present, the project proponent must eradicate the species prior to the start of project construction, using protocols established by and certified field surveyors certified by the National Marine Fisheries Service and California Department of Fish and Wildlife. The *Sunset/Huntington Harbour Marine Biological Resources Report* also states that:

> *Caulerpa algae is currently not present in the project area. However, a Caulerpa algae survey will be conducted according to the National Marine Fisheries Service Control Protocol prior to the initiation of dredge operations. The County will conform to the 2008 Caulerpa Control Protocol, which requires survey results to be submitted to NOAA and California Department of Fish and Game* [now Wildlife] *(CDFG*[W]*) within 15 days of completion of the survey. This protocol also requires that NOAA and CDFG*[W] *be notified within 24 hours if Caulerpa is identified at a permitted project site. If this species is found, then protocols for the eradication of Caulerpa will be implemented to remove this species form the project area.*

To ensure that these *Caulerpa* identification and control protocols are implemented prior to the commencement of any project dredging, trenching, or other harbor bottom disturbing activities, the Commission imposes **Special Condition No. 8**, which identifies the *Caulerpa* survey procedures that will be completed in order to protect marine resources and habitat in the project area.

In conclusion, the proposed maintenance dredging, sediment disposal, and waterline installation project would create temporary and minor impacts to water quality, would avoid affecting listed and special-status species due to project timing, but would lead to the permanent loss of approximately 0.372 acres of eelgrass beds in the project area. To address these impacts, the Commission has imposed the special conditions of this permit, which ensure that the loss of eelgrass is completely mitigated and which ensure that other marine resources and water quality in the project area and the LA-2 ocean disposal site are adequately protected during the construction time period. Therefore, the Commission finds that, as conditioned, the proposed maintenance dredging, disposal, and waterline installation project is consistent with the water quality and marine resources policies of the Coastal Act (Sections 30230, 30231, and 30233).

D. PUBLIC ACCESS AND RECREATION

Section 30210 of the Coastal Act states:

> *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 30213 of the Coastal Act states, in part:

> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred . . .*

Section 30220 of the Coastal Act states:

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

Section 30221 of the Coastal Act states:

> *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Section 30224 of the Coastal Act states:

> *Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing*

> *for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.*

Section 30234 of the Coastal Act states:

> *Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.*

Section 30234.5 of the Coastal Act states:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

The proposed project involves maintenance dredging of existing navigation channels leading to the public and private recreational boat dock facilities of Sunset/Huntington Harbour and the dredging of boat slips at the Sunset Aquatic Marina (**Exhibit 3**). The project would improve and maintain public access and recreation, in particular recreational boating opportunities. However, the navigation channels to be dredged are the only channels leading from Sunset/Huntington Harbour to lower Anaheim Bay and the open ocean. Dredging and waterline installation activities which block the channels could prevent boaters from reaching the ocean, thus temporarily adversely affecting public recreation. However, the County states that at no time would navigation channels be completely blocked by dredging or other construction activities, navigation markers will be present throughout the dredging period, and that boats and emergency vessels will be able to transit the harbors channels and access the ocean. In addition, the County states that:

> *Within the harbor during dredging actions, dredges, pipelines, and other floating equipment would be marked in accordance with U.S. Coast Guard, U.S. Army Corps of Engineers, and/or Orange County Sheriff Harbor Patrol practices . . . and the contractor would comply with all applicable State and local safety laws and regulations.*

Public access to the Sunset Marina boat launch ramp and public parking would be unaffected. Some marina boat owners will need to temporarily relocate their boats during dredging operations at the marina but will have access to their boats during dredging. The County states that:

> *The final need to move boats during dredging operations will ultimately be based on the contractor's equipment. It is anticipated though that there could be the need to move 20 to 30 boats at a time, i.e. the movement of boats would be incrementally phased in conjunction with dredging operations. These boats would*

> *be moved to vacant and guest slips within Sunset Aquatic Marina which has a total of 240 slips, as well as guest slips. There is not a need for construction of temporary docks or moorings. As each area of the marina completes dredging, those boats would be relocated back to their original slips, The County will work with the marina operator and boat owners to accommodate this.*

Regarding the waterline installation, the County states that:

> *Similar to the Maintenance Dredging component, construction equipment to dredge the waterline trench would be present in the navigational channel but would not fully block the channel from boat traffic. However, during the installation of the waterline pipe across the main channel, it is anticipated that there is a need to close this segment of the main channel from boat traffic. This would be limited to one 6-hour period. During this period, emergency access to/from the east end of the main channel could occur on the channel surrounding Trinidad Island.*
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> . . .
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> *Prior to the commencement of construction activities, the City will notify and coordinate with the emergency service providers, including but not limited to the OC Sheriff Harbor Patrol, U.S. Navy, and HBFD* [Huntington Beach Fire Department]*, of the main channel closure at least three weeks in advance of the activity.*

In addition to work in the main channel, construction of the proposed waterline installation would also temporarily affect landside areas in a park at the east side of the channel at Typhoon Lane and at the sandy beach area on the west side of the channel at the end of Grimaud Lane. The City states that:

> *On the Typhoon connection side, the proposed pipeline will rise out of the buried trench within the harbor trench and pass through an 8.5 foot high vertical wall by coring a portal through the wall above the harbor waterline to allow for a dry trench section to continue on land. On land, the City will construct a 14-inch PVC pipeline through a public park (known as J. Prince Park) by open trench method, thereby minimizing construction impacts caused by noise, vibration, etc., to the houses in the area. The pipeline will be constructed at a minimum of 3.5 feet below grade, continue through the park, and connect to an existing 8-inch water pipeline located in Typhoon Lane and Venture Drive. The trench within the park will be backfilled and compacted, and landscaping replaced in-kind.*
>
> *The proposed connection in Grimaud Lane will continue from a buried trench in the harbor and gradually slope westerly towards a public beach located at the end of Grimaud. On land, the proposed 14-inch PVC pipeline will continue through the public beach and be buried with a minimum depth of 3.5 feet below grade. The trench zone in the beach area will be backfilled and compacted. The*

> *proposed pipeline will be constructed by the open trench method through the beach and connect to an existing 6-inch pipeline along Grimaud Lane.*

While landside activities associated with the waterline installation may temporarily restrict access to these two beach and park areas during the six-week-long construction period for the waterline, public access and recreational opportunities would be fully restored at both locations upon completion of construction.

The project also includes the hydraulic pumping of an estimated 69,000 cubic yards of dredged sediments from the entrance channel into the surfzone at the west end of Surfside/Sunset Beach (**Exhibit 4**). The disposal pipeline would be submerged and/or on top of the water and land from the entrance channel, under the PCH bridge, and across the beach at the foot of the south jetty. Heavy equipment will be used to move pipelines across the beach and into the surfzone area. The dredged sediments are fine-grain sands with silt content less than 20% by volume, and while this material is not suitable for direct beach placement due to grain-size characteristics, it is suitable for surfzone placement. Wave action and natural transport will lead to sediment sorting and dispersal and subsequent nourishment of Surfside/Sunset Beach. At the same time, disposal of dredged sediments into the surfzone will lead to an increase in turbidity in surfzone waters (see analysis of this impact in Section V.C. of this staff report, above) and an associated temporary but minor impact to recreational use at this location.

The Commission has concurred with consistency determinations and certifications for dredged material disposal at LA-2 for over 30 years. In those reviews, the Commission determined that dredged material disposal has not significantly affected commercial and recreational fisheries or recreational boating in the ocean waters adjacent to LA-2 or in the transit paths between southern California dredging sites and LA-2. In addition, the Commission found in its June 2005 concurrence with USEPA's consistency determination (CD-065-05) for an increased maximum annual dredged material disposal quantity at LA-2 that:

> *. . . the LA-2/LA-3 Ocean Dredged Material Disposal Site Management and Monitoring Plan is a required element of the . . . increased use of LA-2. As described earlier in this report, the Site Management and Monitoring Plan includes provisions for site monitoring and management actions to protect marine and fishery resources, including revisions to the Plan if necessary . . . .*

Given the existing limitations on the use of the LA-2 ocean disposal site and the ongoing monitoring of that site, the proposed disposal at LA-2 of up to 174,000 cu.yds. of clean, fine-grained dredged materials from Sunset/Huntington Harbour will not adversely affect offshore recreational boating and fishing activities.

The proposed maintenance dredging and waterline installation project would generate minor adverse effects on public access and recreational boating, primarily from temporary restrictions on vessel movement in navigation channels and mooring areas, and temporarily restrict access at small park areas located at the landside segments of the waterline project. Navigation channels will remain passable to recreational and emergency vessels during maintenance dredging, and closure of the main channel at the waterline installation site will last only six hours. Temporary

impacts on access and recreation at the extreme western end of Surfside/Sunset Beach will occur during surfzone disposal of dredged sediments, a project element that will last between six and ten weeks. However, the proposed project would improve the safety of recreational boating by returning the navigation channels and berthing areas to their design depths. The disposal into the littoral system and the beneficial reuse of clean fine-grain sands dredged from the entrance channel will nourish the Surfside/Sunset Beach shoreline. The discharge pipeline will be covered with sand to create walkover ramps for people using the beach and beach closures will not be required. The dredging, disposal (surfzone and LA-2), and waterline installation activities are scheduled to occur between September 2015 and March 2016 in order to avoid the peak summertime recreational use period. Disposal of fine-grained dredged sediments at LA-2 will not adversely affect recreational boating and fishing. Maximum access to the coast is therefore preserved, maximum recreational opportunities are still provided, and the use of the project area for water-oriented recreational activities is protected. Therefore, the Commission finds that the project-related impacts to public access and recreation will be temporary and less than significant, and that the proposed maintenance dredging and waterline installation project is consistent with the public access and recreational boating policies of the Coastal Act (Sections 30210, 30213, 30220, 30221, 30224, 30234, and 30234.5).

E. OTHER AGENCY APPROVALS AND CONSULTATIONS

U.S. Army Corps of Engineers

The County and City have submitted applications to the Corps for permits under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act.

Department of the Navy

The County will obtain authorization from the Department of the Navy for installation of that segment of the surfzone disposal pipeline that crosses Navy property at Naval Weapons Station Seal Beach.

California State Lands Commission

The City will enter into a lease agreement with the State Lands Commission for the waterline installation, and the County will obtain authorizations from the State Lands Commission for dredging and surfzone disposal of dredged materials that will occur on State Lands Commission jurisdictional property.

Santa Ana Regional Water Quality Control Board

The County of Orange received a Clean Water Act Section 401 Water Quality Standards Certification for the Sunset/Huntington Harbour Maintenance Dredging and Water Supply Line Installation Project from the Santa Ana Regional Water Quality Control Board on February 19, 2015. The certification includes special conditions to protect water quality, aquatic life, and eelgrass.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) submitted a letter to the U.S. Army Corps of Engineers on March 16, 2015, commenting on the Corps' Public Notice of the County of Orange and City of Huntington Beach application to the Corps for permits under Section 404

of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection Research and Sanctuaries Act. The CDFW recommended that further reductions in eelgrass impacts be investigated, that alternatives to the currently proposed eelgrass mitigation site be investigated, and that project construction during the California least tern and Western snowy plover breeding and nesting season, and during the California grunion spawning season, be avoided between March 1st and August 31st.

F. LOCAL COASTAL PROGRAM

Section 30604(a) of the Coastal Act provides for the issuance of coastal development permits directly by the Commission in regions where the local government having jurisdiction does not have a certified Local Coastal Program (LCP), and Section 30519(b) prevents the delegation of authority post-LCP certification from occurring with respect to development on tidelands, submerged lands, and public trust lands. The permit may only be issued if the Commission finds that the proposed development will not prejudice the ability of the local government to prepare an LCP which conforms with the Chapter 3 policies of the Coastal Act.

A portion of the proposed navigation channel dredging, and the pipeline route for transporting dredged sediments to the surfzone off Surfside/Sunset Beach, are located in the City of Seal Beach, which does not have a certified LCP. (The proposed dredging in the City of Seal Beach is located wholly within the Commission's area of original jurisdiction.) Therefore, this portion of the project is evaluated for conformance with Chapter 3 policies. The project, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act and therefore will not prejudice the ability of the City to prepare an LCP which conforms to the Chapter 3 policies.

The balance of the proposed navigation channel dredging and the waterline installation is taking place in the City of Huntington Beach, which does have a certified LCP. The proposed dredging and the waterside portion of the waterline project are located within the Commission's area of original jurisdiction; these project elements are evaluated for conformance with Chapter 3 policies. The two landside segments of the waterline are located in the City's permit jurisdiction area. However, the City requested that the Commission process a consolidated coastal development permit for the landside and waterside segments. As a result, the landside segments are also evaluated for conformance with Chapter 3 policies, per the requirements of Coastal Act Section 30601.3. The project, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act and therefore will not prejudice the ability of the City to continue to administer its LCP.

G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The County of Orange is the lead agency for purposes of CEQA compliance. A Draft Initial Study/Mitigated Negative Declaration (IP 14-148) dated August 2014 was prepared for this project pursuant to the provisions of CEQA. The County of Orange adopted the Mitigated Negative Declaration on January 27, 2015.

The proposed project has been conditioned in order to be found consistent with the resource protection policies of the Coastal Act. As conditioned, the proposed project has been found consistent with the dredging and filling, water quality, marine resources, and public access and recreation policies of the Coastal Act. Mitigation measures to minimize and avoid adverse effects to coastal resources include special conditions related to: (1) post-completion dredging report; (2) turbidity control; (3) construction responsibilities; (4) pre- and post-construction eelgrass surveys and eelgrass mitigation plans; (5) construction timing for biological resources protection; (6) marine mammal protection; and (7) pre-construction *caulerpa taxifolia* survey. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, that would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified effects, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX 1

SUBSTANTIVE FILE DOCUMENTS.

1. 5-13-1379 (County of Orange and City of Huntington Beach), Sunset/Huntington Harbour Maintenance Dredging and Waterline Installation Project, Orange County.
2. CC-0003-14 (County of Orange), Dredged Material Disposal at LA-2 Ocean Disposal Site, Los Angeles County.
3. Sunset/Huntington Harbour Maintenance Dredging and Waterline Installation Project Draft Initial Study/Mitigated Negative Declaration IP 14-148, County of Orange and City of Huntington Beach (ICF International), August 2014, and as adopted by the Orange County Board of Supervisors on January 27, 2015.
4. Sunset/Huntington Harbour Marine Biological Resources Report for the County of Orange Sunset/Huntington Harbour Maintenance Dredging Project and City of Huntington Beach Waterline Installation Project (Coastal Resources Management, Inc.), April 2014.
5. Marine Biological Resources Assessment, Surfside-Sunset Beach, Beach Nourishment Project for the County of Orange Sunset/Huntington Harbour Dredge Project (Coastal Resources Management, Inc.), July 13, 2014.
6. Sampling and Analysis Plan, Dredge Material Evaluation, Sunset/Huntington Harbour Maintenance Dredging and Waterline Installation Project (Kinnetic Laboratories, Inc., and Moffatt & Nichol), November 2013.
7. Sampling and Analysis Report, Dredge Material Evaluation, Sunset/Huntington Harbour Maintenance Dredging and Waterline Installation Project (Kinnetic Laboratories, Inc., and Moffatt & Nichol), May 2014.
8. California Eelgrass Mitigation Policy and Implementing Guidelines, National Marine Fisheries Service, NOAA, October 2014.
9. Southern California Eelgrass Mitigation Policy, National Marine Fisheries Service, NOAA, 1991(as amended).
10. Clean Water Act Section 401 Water Quality Standards Certification for the Sunset/Huntington Harbour Maintenance Dredge and Water Supply Line Installation Project, City of Huntington Beach and Seal Beach, County of Orange, California (ACOE Reference No. SPL-2013-00900-SME)(SARWQCB Project No. 302014-05), Santa Ana Regional Water Quality Control Board, February 19, 2015.
11. Water Quality Control Plan for the Santa Ana River Basin, Santa Ana Regional Water Quality Control Board, 1995.
12. Southern California Dredged Material Management Team, Final Meeting Notes, November 20, 2013, and May 28, 2014.
13. Ocean Testing Manual, U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, 1991.
14. CD-114-96 (U.S. Environmental Protection Agency), Designation of the LA-2 Ocean Disposal Site, Los Angeles County.
15. CD-065-05 (U.S. Environmental Protection Agency), Designation of the LA-3 Ocean Disposal Site and Continued Management of the LA-2 Ocean Disposal Site, Orange and Los Angeles Counties.

16. 5-97-231 (County of Orange), Maintenance Dredging in Sunset/Huntington Harbour, Orange County.
17. CC-137-97 (County of Orange), Dredged Material Disposal at LA-2 Ocean Disposal Site, Los Angeles County.

Figure 2-1

Sunset/Huntington Harbour
and Water

Exhibit 1
5-13-1379 & CC-0003-14

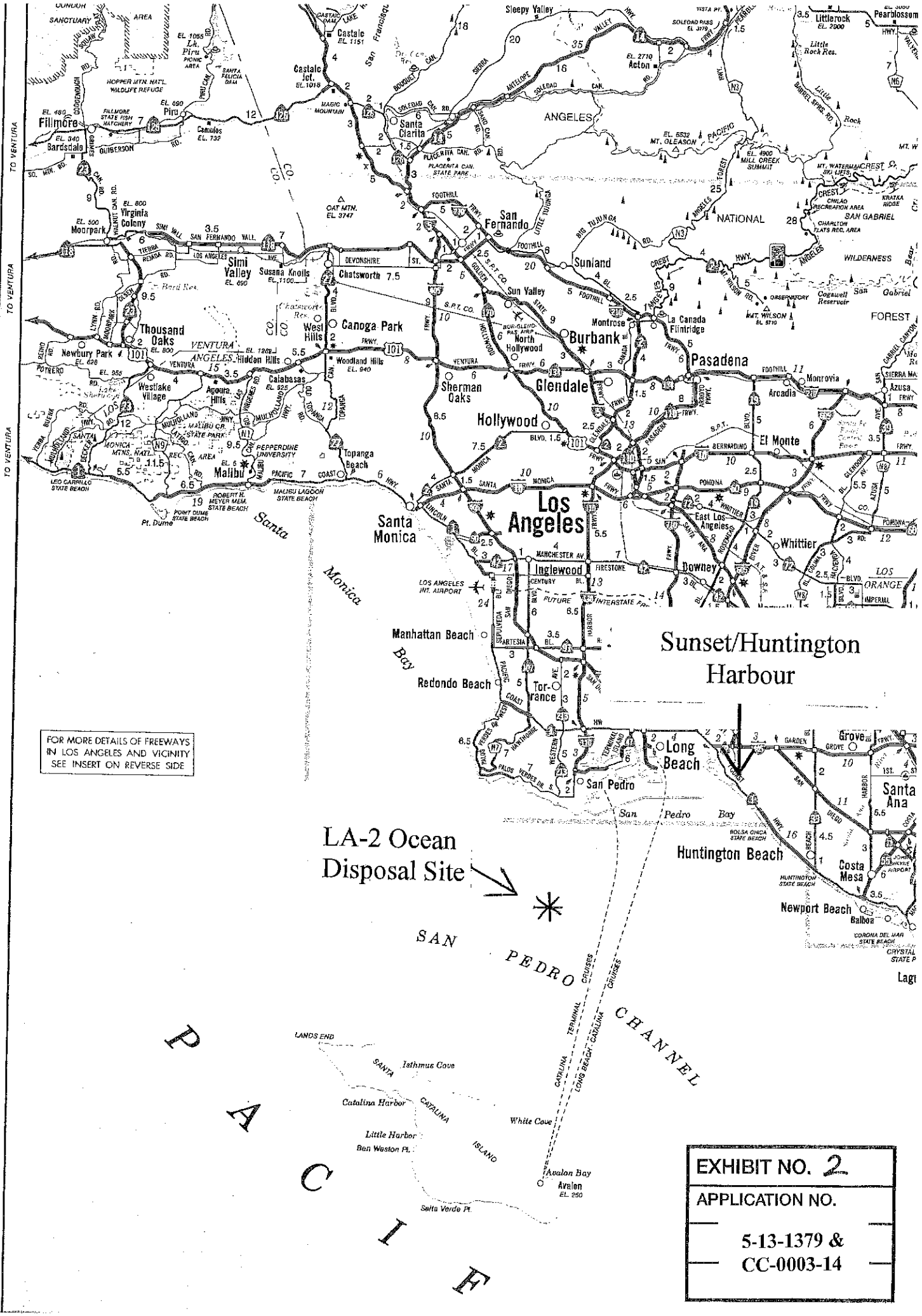
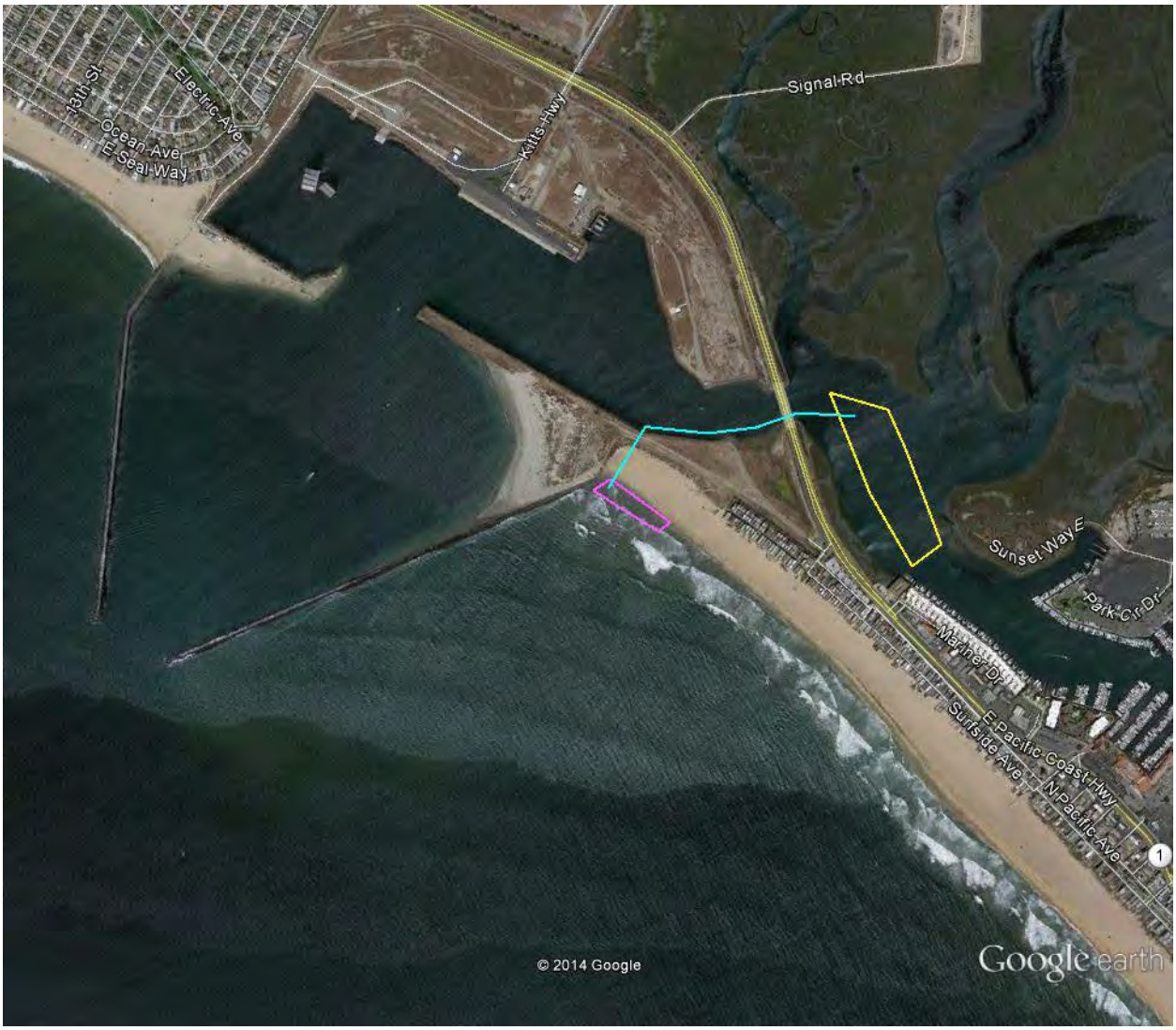


EXHIBIT NO. 2.
APPLICATION NO.
5-13-1379 & CC-0003-14

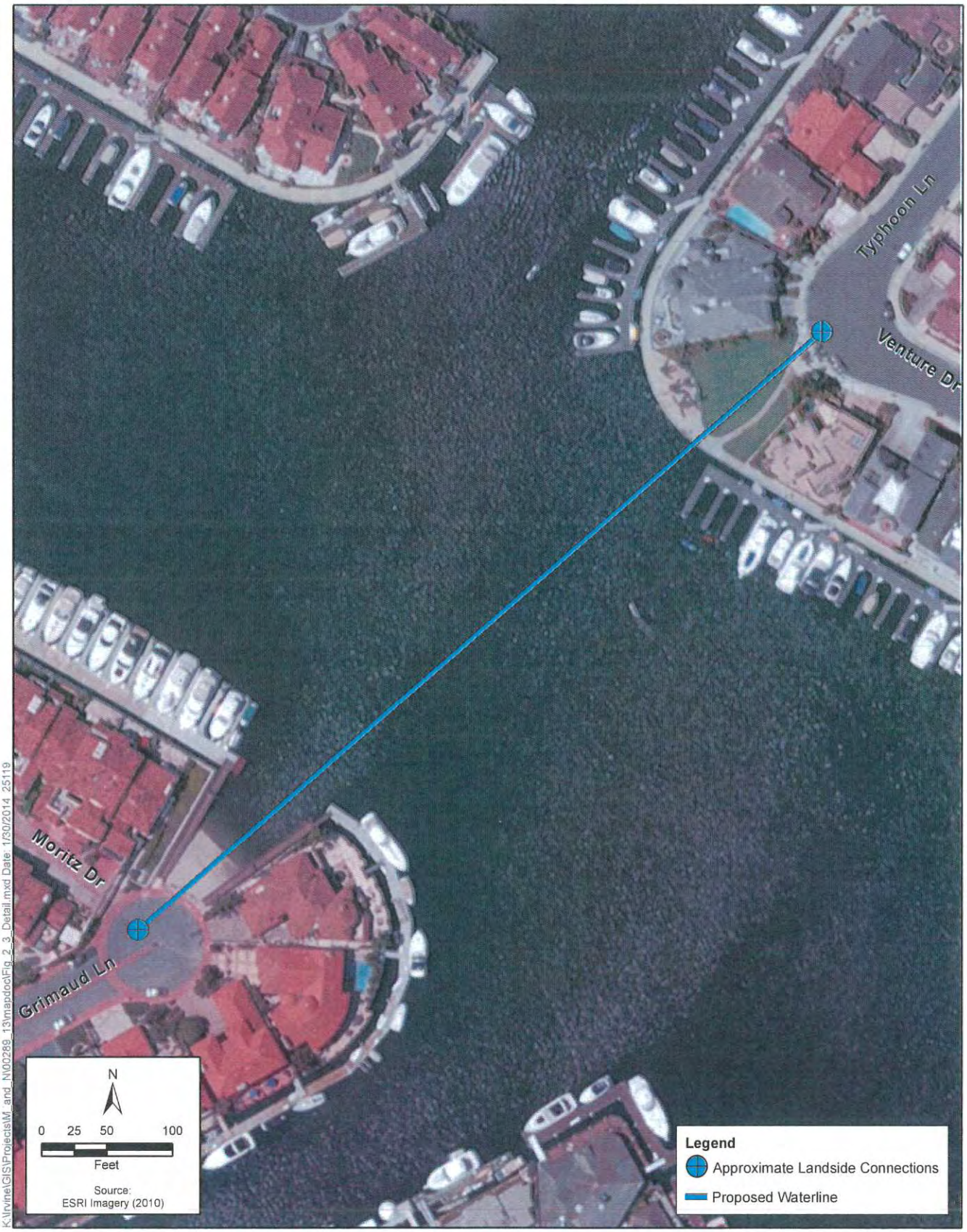
Maintenance Dredging and Waterline I
Sunset/Huntington Harbour Maintenance Dredging and Waterline

Exhibit 3
5-13-1379 & CC-0003-14



Hydraulic Pipeline from Entrance Channel to Surfside/Sunset Beach

Exhibit 4
5-13-1379 & CC-0003-14



Sunset/Huntington Harbour Maintenance Dredging and W

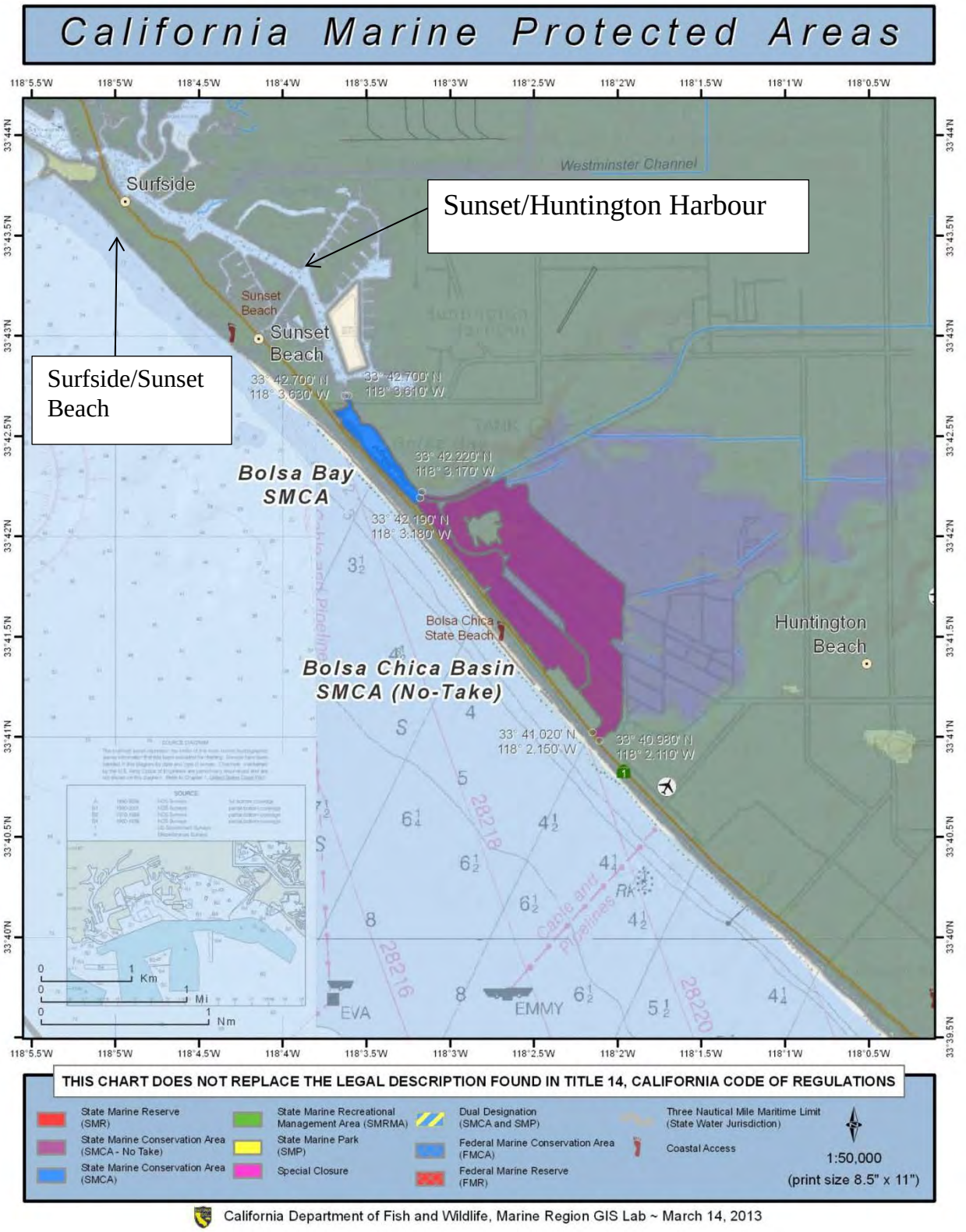
Exhibit 5
5-13-1379 & CC-0003-14

Table 5. Project Impacts. Losses of Eelgrass Vegetation

Area	Eelgrass Areal Cover (sq ft)	Amount of Eelgrass Loss (sq ft)	Percent Eelgrass Loss	Required Amount to be Mitigated (sq ft) (1.2 to 1 ratio)
ZONE 1				
East Bank (Tern Island)	38,942.7	10,075.0	25.9	12,090.0
North Bank (AB Wildlife Refuge)	92,344.2	0.0	0.0	0.0
Sunset Aquatic Park Access Channel	21,400.7	0.0	0.0	0.0
West Bank (PCH)	21,323.1	0.0	0.0	0.0
West Bank Shoal	12,597.5	0.0	0.0	0.0
ZONE 2				
Bolsa Channel	2,953.5	2,953.5	100.0	3,544.2
Sunset Aquatic Park Marina	2514.1	2129.2	84.7	2,555.0
Water Line Project	1,776.5	1,039.0	58.5	1,246.8
ZONE 3				
Warner Avenue	20.4	0.0	0.0	0.0
Total (sq ft)	193,872.8	16,196.7	8.4	19,436.1
Total (acres)	4.451	0.372	8.4	0.446

CRM Revised Jan 16 2015

EXHIBIT NO. 6
APPLICATION NO.
5-13-1379 &
CC-0003-14



Bolsa Bay and Bolsa Chica Basin State Marine Conservation Areas

Exhibit 7
5-13-1379 & CC-0003-14