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STAFF RECOMMENDATION
ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-006-02
Staff:	LJS-SF
File Date:	3/07/2002
60th Day:	5/06/2002
75th Day:	5/21/2002
Commission Meeting:	5/7/2002

FEDERAL AGENCY: **U.S. Army Corps of Engineers**

PROJECT LOCATION: Port of Los Angeles **(Exhibits 1 and 2)**.

PROJECT DESCRIPTION: Phase 2 channel deepening and landfill construction in the Port of Los Angeles (Phase 1 concurrence (CD-050-00) occurred on July 13, 2000). Phase 2 includes the following changes to the previously-concurred-with project: (1) dispose 4.7 million cubic yards of clean dredged material at the Pier 400 submerged storage site; (2) increase the size of the Southwest Slip fill site from 35 to 43 acres and place all contaminated dredged materials within the west fill section; (3) improve the Los Angeles County flood control channel along the northern boundary of the Southwest Slip fill; (4) construct two acres of landfill at the south end of Berth 100; (5) dredge the East Basin in the Cerritos Channel to –53 feet MLLW; and (6) construct the Seaplane Lagoon eelgrass restoration area. Phase 2 also includes reports on sediment disposal decisions, circulation and water quality modeling, and post-project water quality and least tern monitoring plans.

SUBSTANTIVE FILE DOCUMENTS:

1. Port of Los Angeles Port Master Plan (as amended).

2. Consistency Determination CD-50-00 (Corps of Engineers: Port of Los Angeles Channel Deepening Project).

3. Port of Los Angeles Port Master Plan Amendment No. 21 (Channel Deepening and Fill Project, as submitted in March 2002).

4. Consistency Determinations CD-57-92 and CD-2-97 (Corps of Engineers: Port of Los Angeles Deep Draft Navigation Improvement Project, Stages 1 and 2, respectively).

5. Negative Determinations ND-103-97 and ND-25-99 (Corps of Engineers: Port of Los Angeles Deep Draft Navigation Improvement Stage 2 Project Modifications).

6. Consistency Determination CD-115-96 (U.S. Fish and Wildlife Service: Bolsa Chica Lowland Acquisition and Conceptual Restoration Plan).

7. Port of Long Beach Port Master Plan Amendment No. 11 (Dredged Material Storage Disposal Site, certified May 1998).

EXECUTIVE SUMMARY

The Corps of Engineers has submitted the second of two consistency determinations for its proposed Channel Deepening Project in the Port of Los Angeles. The project is designed to improve cargo handling efficiency at the Port of Los Angeles by deepening channels to provide safe access to inner harbor berths for the largest vessels in the international container ship fleet. The first consistency determination, CD-050-00, was concurred with by the Commission on July 13, 2000. As a part of that concurrence, the Corps agreed to a phased review of the overall project pursuant to 15 C.F.R. Section 930.37(c) and the submittal of a second consistency determination to address: (1) the final design decisions on the disposal of contaminated and clean sediments dredged from harbor channels and turning basins; (2) final review by U.S. EPA of sediment test results and review by the Los Angeles Region Contaminated Sediments Task Force of contaminated sediment disposal plans; (3) results of modeling of potential water circulation and water quality changes due to the existing and proposed expansion of the Cabrillo Shallow Water Habitat; and (4) post-project water quality monitoring and California least tern foraging monitoring plans.

In addition, this consistency determination includes the following proposed project modifications:

- Construction and use of the proposed Pier 400 Submerged Storage Site to allow in-bay disposal of approximately 4.7 million cubic yards (mcy) of clean dredged material; 2.9 mcy would come from channel dredging and 1.8 mcy would come from excess Pier 400 landfill surcharge material;

- Dredge the East Basin in the Cerritos Channel to the -53' MLLW project depth;

- Increase the size of the Southwest Slip fill site from 35 acres to approximately 43 acres measured at +15' MLLW and placing all contaminated materials within the West Fill section of this site;

- Design and construction of improvements to the Los Angeles County Flood Control Channel (LACFCC) located along the northern boundary of the Southwest Slip fill site West Fill;

- Construct two acres of landfill at the south end of Berth 100.

- Construct the Seaplane Lagoon Eelgrass Restoration Area north of the Pier 300 landfill.

The proposed modifications to dredging and disposal elements to deepen shipping channels and berths, and to create new landfills, sediment storage areas, and mitigation areas, are consistent with the dredge and fill policies of the California Coastal Management Program (CCMP; Section 30705 of the Coastal Act). Proposed dredged sediments were tested and, except for 650,000 cubic yards of contaminated sediments to be placed in the Southwest Slip west landfill, are physically and chemically suitable for unconfined aquatic disposal. Review of sediment test results by U.S. EPA, review of contaminated sediment management plans by the Los Angeles Region Contaminated Sediments Task Force, results of modeling of water circulation patterns adjacent to Cabrillo Beach, and a post-project water quality monitoring plan indicate and ensure that the proposed project modifications will not result in any significant adverse water quality effects. The environmental commitments and mitigation measures incorporated into the project make the project modifications consistent with the water quality and marine habitat protection policies of the CCMP (Sections 30705, 30706, and 30708 of the Coastal Act).

Proposed project modifications will not generate significant, adverse effects on environmentally sensitive marine habitat in San Pedro Bay. With the mitigation measures outlined in the consistency determination and Draft SEA, and with the commitments made by the Corps in the Phase 1 and 2 consistency determinations regarding California least tern foraging monitoring and mitigation and eelgrass mitigation and monitoring, the proposed dredging and filling is consistent with the fish and wildlife resource and habitat protection policies of the CCMP (Sections 30706 and 30708 of the Coastal Act).

Proposed project modifications will place 4.7 million cubic yards of clean dredged materials at the proposed Pier 400 submerged storage site. Because of the predominately small grain size of this material and its unsuitability for beach replenishment, this modification is consistent with the sand supply policies of the CCMP (Sections 30706 and 30708 of the Coastal Act). Proposed

dredge and fill modifications will generate only temporary and minor effects on recreational boating and fishing in port waters. Water circulation and water quality modeling adjacent to the Cabrillo Shallow Water Habitat confirmed that no adverse effects would occur due to the project. Therefore, the proposed project modifications are consistent with the commercial and recreational fishing and boating policies of the CCMP (Sections 30706 and 30708 of the Coastal Act).

STAFF SUMMARY AND RECOMMENDATION:

I. Background.

A. Previous Commission Action. Since 1993 the Commission has concurred with numerous consistency determinations (CD-57-92, CD-2-97, and CD-50-00), negative determinations (ND-103-97 and ND-25-99), and port master plan amendments (POLA PMPA Nos. 12, 13, 15, 17, and 19), for construction of the Port of Los Angeles Deep Draft Navigation Improvement (DDNI), which includes channel deepening, landfill and terminal construction, and mitigation measures for impacts to marine habitat. The subject consistency determination is a further refinement of the original DDNI project.

The Phase 1 consistency determination (CD-050-00) for the Port of Los Angeles Channel Deepening Project was concurred with by the Commission on July 13, 2000, and included the following elements:

- Deepen the inner harbor channels at the POLA from –45 feet to –53 feet mean lower low water;

- Dispose approximately 4.2 million cubic yards of dredged material (including 600,000 cubic yards of contaminated sediments) to create a 54-acre expansion of the Cabrillo Shallow Water Habitat Area, a 35-acre landfill in the Southwest Slip, and a 40-acre landfill at Pier 300;

- Place the contaminated sediments within the Southwest Slip and/or Pier 300 landfills;

- Dispose an additional 2.4 million cubic yards of dredged material at the LA-2 and/or LA-3 ocean disposal sites;

- Mitigate marine habitat losses from the proposed landfills by using mitigation credits held by the Port of Los Angeles in the Port's outer harbor mitigation account and in the Port's share of the Bolsa Chica wetlands restoration account.

B. Phased Review. As a part of the Commission's concurrence with CD-050-00, the Corps of Engineers agreed to a phased review of the project pursuant to 15 C.F.R. Section 930.37(c). At that time, the Corps committed to submit to the Commission, prior to the start of project

construction, a second consistency determination for the project that would include the following elements:

- Final design decisions on the disposal location for contaminated and clean sediments.
- Final EPA review of sediment test results.
- Review by the Los Angeles region Contaminated Sediments Task Force of the proposed disposal of contaminated sediments.
- Results of modeling by the Corps of potential circulation changes, and the inferred water quality effects, in harbor waters between Cabrillo Beach and the Main Channel from four Cabrillo Shallow Water Habitat development scenarios.
- A post-project water quality monitoring program for harbor waters between Cabrillo Beach and the Main Channel.
- A post-project California least tern foraging monitoring program for the project area.

The Corps has included these elements in the subject consistency determination, along with several modifications (described below in Section II) to the overall project. The Commission must now determine whether the previously-concurred with project (CD-50-00), as modified by the subject consistency determination, remains consistent with the resource protection policies of the California Coastal Management Program. Therefore, this staff report and recommendation focuses on the project modifications, final design decisions, and technical reports, and does not reexamine the previously-concurred-with, and un-changed, project elements. However, to provide the necessary context and to assist in the analysis of the subject consistency determination, the adopted findings for CD-50-00 are attached to this report as **Appendix 1.**

C. Standard of Review. The proposed Channel Deepening Project is examined in this report for consistency with the policies of Chapter 8 of the Coastal Act, and not the Chapter 3 policies, because all the proposed development would occur within the jurisdictional boundary of the Port of Los Angeles. In addition, because the proposed developments are non-appealable there is no trigger for Chapter 3 policy review.

A port master plan amendment submitted by the Port of Los Angeles for the proposed development (encompassing development contained in both CD-050-00 and CD-006-02) is scheduled to be heard by the Commission at its May 2002 meeting. Commission certification of the master plan amendment is required in order for the Commission to concur with the subject consistency determination, due to the requirement that the proposed activities in the consistency determination be consistent with a certified port master plan. However, should the Commission either object to or postpone action on POLA's port master plan amendment No. 21 at the May 2002 meeting, the Commission staff will necessarily change its recommendation on this consistency determination.

II. Project Description.

The Phase 2 consistency determination describes the design refinements for the proposed project that were developed after the Commission's concurrence with the Phase 1 consistency determination in July 2000 (**Exhibits 3-7**):

- Construction and use of the proposed Pier 400 Submerged Storage Site to allow in-bay disposal of approximately 4.7 million cubic yards (mcy) of clean dredged material; 2.9 mcy would come from channel dredging and 1.8 mcy would come from excess Pier 400 landfill surcharge material;

- Dredge the East Basin in the Cerritos Channel to the -53' MLLW project depth;

- Increase the size of the Southwest Slip fill site from 35 acres to approximately 43 acres measured at +15' MLLW and placing all contaminated materials within the West Fill section of this site;

- Design and construction of improvements to the Los Angeles County Flood Control Channel (LACFCC) located along the northern boundary of the Southwest Slip fill site West Fill;

- Construct two acres of landfill at the south end of Berth 100.

- Construct the Seaplane Lagoon Eelgrass Restoration Area north of the Pier 300 landfill.

With the proposed modifications, the following is a breakdown of the project's dredge and fill volumes:

Total volume dredged: 8.0 million cubic yards (mcy)

Disposal locations of dredged material:

Pier 300 Landfill	1.6 mcy
Southwest Slip Landfill	1.5 mcy
Berth 100 Landfill	0.9 mcy
Cabrillo SWH Expansion	1.0 mcy
Pier 300 Eelgrass Site	0.1 mcy
Pier 400 Submerged Fill	2.9 mcy
TOTAL	8.0 mcy

Note: In addition, 1.8 mcy of excess Pier 400 landfill surcharge material (clean sediment dredged in an earlier stage of the POLA navigation improvement project and used to compact and stabilize the Pier 400 landfill) will be removed from the northwest quadrant of the Pier 400

landfill and placed at the Pier 400 submerged fill storage site, bringing the total volume placed at this location to 4.7 mcy.

CD-050-00 contained an estimate of 6.6 mcy as the total volume of dredged materials to be removed for the Channel Deepening Project. This estimate was revised upward to the new estimated volume of 8.0 mcy. This revision is due to two processes: a refinement in the original estimate using more recent bathymetric data, and the addition of new areas to be dredged that were not contained in the original project description and that are addressed in the Draft Supplemental Environmental Assessment (DEA) accompanying the consistency determination. The following table from the Draft SEA describes and quantifies those revisions:

Table 1 Dredge Quantity Revisions

Topic	Dredge Volume
Original SEIS/SEIR total volume	6.6 mcy
More recent bathymetric data/Contingency	+0.13 mcy
Pilot Station	+0.50 mcy
Maintenance dredging	+0.20 mcy
East Turning Basin	+0.40 mcy
Southwest Slip foundation dredging	+0.17 mcy
SEA total volume	8.0 mcy

The Draft SEA describes changes in the dredge and disposal volumes in further detail:

The area immediately south of the Pilot Station was revised in order to daylight to the south at the –51' MLLW contour. This change and the use of new bathymetry in this area (which hadn't been recently surveyed since it lies outside the navigational channel) resulted in an increased estimate of dredged materials from this area by an additional 500,000 cubic yards (0.50 mcy). Sediments within the federal navigation channel that are above the currently authorized depth of –45' MLLW were not included in the original estimate. These sediments are considered to be maintenance dredging. New surveys were conducted to include this volume in the proposed project to allow use of Operation and Maintenance funds to pay for the dredging and disposal of these sediments. This resulted in an increase of 200,000 cubic yards (0.20 mcy) of dredged materials. The East Turning Basin in Cerritos Channel was not originally included in the proposed project. It has now been included (see section 1.2.2 above). This addition has resulted in an increase in sediment volume of approximately 400,000 cubic yards (0.40 mcy). Dredging associated with dike construction in the Southwest Slip Fill Site also was not included in the proposed project. It has now been included (see section 1.2.3, 1.2.4, & 1.2.5 above). This addition has resulted in an increase in sediment volume of 150,000 cubic yards (0.15 mcy). The total volume estimate of 8.0 mcy includes 150,000 cubic yards for round off and contingency considering variability in measurement.

The consistency determination also includes technical reports and information items which the Corps committed to include in this Phase 2 consistency determination for the overall project: (1) water circulation and water quality modeling of potential impacts to the Inner Cabrillo Beach

area by expansion of the Cabrillo Shallow Water Habitat; (2) post-project California least tern foraging study; (3) post-project water quality monitoring plan for the water area between Cabrillo Beach and the Main Channel; and (4) dredged sediment management decisions, including final disposal locations, EPA review of sediment test results, and Contaminated Sediment Task Force review of the contaminated sediment disposal plan.

The Draft SEA describes in greater detail the proposed project modifications:

Pier 400 Submerged Storage Site (**Exhibit 3**):

This disposal alternative was fully assessed in the SEIS/SEIR, but was not included in the proposed project. The Draft SEA included this alternative in the proposed project with minor design modifications. The design modifications are construction of the submerged dike and storage area to –15' mean lower low water (MLLW) instead of the –20' MLLW assessed in the SEIS/SEIR (-15' MLLW is required to allow for consolidation of the dredged materials to result in a long-term maximum depth of –20' MLLW), increase in storage volume from 2.5 million cubic yards (mcy) to 4.7 mcy, and a reduction in surface area from 160 to 125 acres. Additionally, the Terminal Island Treatment Plant (TITP) outfall will not have to be relocated (the SEIS/SEIR addressed relocation of the TITP outfall as a consequence of this disposal option). Of the 4.7 mcy of fill material, approximately 2.9 mcy will consist of dredged materials from the Channel Deepening Project. The remaining materials will be surcharge material taken from Pier 400 that will be used to provide structural support for the rock containment dikes and the quarry-run rock for the dikes themselves. This surcharge material is material previously dredged during construction of the Pier 400 landfill and placed, for surcharge purposes, on to Pier 400.

Dredging of the East Basin in Cerritos Channel (**Exhibit 4**):

Dredging in the East Basin of the Cerritos Channel (Figure 6) was originally included in the Port of Los Angeles' plans to deepen the Main Channel to a project depth of –50' MLLW (POLA 1998). The East Basin dredging was removed from the federal project as being unnecessary during the Feasibility Study Phase. Discussions with Port of Los Angeles Port Pilots have resulted in the reintroduction of East Basin dredging as part of the proposed project for safety. The East Basin area to be dredged covers approximately 125 acres and will entail dredging of approximately 0.4 mcy of sediments.

The East Basin is being reintroduced as a navigation safety measure resulting from a navigation simulation study conducted by the Corps and Port. Dredging this area to project depth will provide a turn out area for ships passing in the Cerritos Channel (which is too narrow for two-way traffic) as well as an emergency area for ships to turn into while experiencing equipment breakdown (i.e. loss of rudder or engine control). Additionally, if the –53' MLLW project does not include the entire basin, marking of the channel with a buoy will interfere with the commercial vessels using the East Basin for

turning. The channel-marker buoy would become a navigational hazard for smaller vessels.

Southwest Slip Fill Site (**Exhibit 5**):

The size of the Southwest Slip Fill Site is being increased from 35 to 43 acres measured at +15' MLLW. This is being done by increasing the size of the West Fill from 15 to 23 acre in size (Figure 7). The size of the West Fill is being increased in order to sequester all dredged sediments determined to be unsuitable for ocean disposal. All sediments determined by the U.S. Army Corps of Engineers in consultation with the U.S. Environmental Protection Agency to be unsuitable for ocean disposal will be disposed of within the West Fill.

Los Angeles County Flood Control Channel Improvements (**Exhibit 5**):

The Southwest Slip Fill Site West Fill will channelize the Los Angeles County Flood Control Channel (LACFCC). The north bank and bottom of this channel will be improved so that the LACFCC will continue to function unimpeded during design flow events. This will entail removal of a small point of land (see Figure 7), smoothing and placement of rock armor on the north bank, and sloping and placement of rock on the channel bottom. All channel dimensions and slopes were designed to meet Los Angeles County's flood control requirements. Approximately one acre of land will be converted into water area.

One side benefit of this process is the removal of the necessity to dig a dike key under the northern dike for the Southwest Slip Fill Site West Fill. A soft-bottomed LACFCC would have required excavation of a key beneath the northern fill dike in order to maintain lateral stability of the dike. With the rock-bottomed channel this key is no longer necessary. Dredging and disposal of sediments from the former key will no longer be required.

Berth 100 Dredge and Wharf Fill (**Exhibit 6**):

Construction of a wharf at Berth 100 requires a southward extension of the existing dike face (Figure 8), which requires dredging for placement of a rock dike and filling approximately 2 acres behind the rock dike.

Seaplane Lagoon Eelgrass Restoration Area (**Exhibit 7**):

One of the mitigation measures included in the SEIS/SEIR is the requirement to replace eelgrass lost due to construction of the Pier 300 Expansion Site. An area adjacent to the jetty located in the Seaplane Lagoon has been selected as the site to construct the eelgrass mitigation bed. Dredged materials will be used to raise the bottom elevation of approximately 15 acres to a new elevation ranging from -5' MLLW at the jetty to –10' MLLW along the outer boundary (Figure 9). This will require approximately 110,000 cy

of sediments. Due to lack of coarse-grained dredge materials, this fill is currently identified as silts and silty-sand. Should coarse-grained materials be required, another source of sand (i.e. surcharge material located on Pier 400) will be identified. Eelgrass will be transplanted into the site using eelgrass from the Pier 300 Shallow Water Habitat and Cabrillo Beach area as source materials. Eelgrass will be transplanted in accordance with National Marine Fisheries Service guidance. A survey will be conducted in the Pier 300 Shallow Water Habitat prior to construction to establish the mitigation area required.

Area South of the Pilot Station:

Approximately 2.3 acres of the dredge footprint within the area south of the Pilot Station meets the definition of shallow water habitat (depth <20' MLLW). Dredging would result in the loss of this 2.3 acres of shallow water habitat. This loss will be mitigated through the Outer Harbor Mitigation Bank. The habitat is somewhat degraded in comparison to other shallow water habitats located in San Pedro Bay both by its location immediately adjacent to the Main Channel and by its existing depth of –18' to –19' MLLW.

The consistency determination also includes documentation of final sediment disposal decisions (including review by EPA and the Contaminated Sediments Task Force) and the following reports, which the Corps committed to submit in the Phase 1 consistency determination (CD-050-00) in July 2000:

- Water Quality and Hydrodynamic Analysis of the Cabrillo Shallow Water Habitat (Corps of Engineers, February 2002).
- Monitoring of Least Tern Foraging, Port of Los Angeles Deepening Project, 2001 (Corps of Engineers, January 2002).
- Cabrillo Beach Monitoring Plan (Corps of Engineers, March 2002).

The Corps anticipates starting project construction in August 2002 and completing all work by December 2003.

III. Status of Local Coastal Program.

The standard of review for federal consistency determinations is the policies of Chapter 3 and Chapter 8 of the Coastal Act, and not the Local Coastal Program (LCP) or Port Master Plan (PMP) of the affected area. If an LCP or PMP that the Commission has certified and incorporated into the California Coastal Management Program (CCMP) provides development standards that are applicable to the project site, the LCP or PMP can provide guidance in applying Chapter 3 or Chapter 8 policies in light of local circumstances. If the Commission has not incorporated the LCP or PMP into the CCMP, it cannot guide the Commission's decision,

but it can provide background information. The Commission has certified the Port of Los Angeles' PMP and incorporated it into the CCMP.

IV. Federal Agency's Consistency Determination.

The U.S. Army Corps of Engineers has determined the proposed project consistent to the maximum extent practicable with the California Coastal Management Program.

V. Motion.

I move that the Commission ***concur*** *with consistency determination CD-006-02 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).*

VI. Staff Recommendation.

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

VII. Resolution to Concur with Consistency Determination.

The Commission hereby ***concurs*** *with the consistency determination made by the U.S. Army Corps of Engineers on the grounds that the project described therein is consistent with the enforceable policies of the CCMP.*

VIII. Findings and Declarations.

The Commission finds and declares as follows:

A. Dredging and Filling. Section 30705 of the Coastal Act provides the following in relevant part:

(a) Water areas may be diked, filled, or dredged when consistent with a certified port master plan only for the following:

(1) Such construction, deepening, widening, lengthening, or maintenance of ship channel approaches, ship channels, turning basins, berthing areas, and facilities as are required for the safety and the accommodation of commerce and vessels to be served by port facilities.

(2) New or expanded facilities or waterfront land for port-related facilities.

(3) New or expanded commercial fishing facilities or recreational boating facilities.

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

(5) Mineral extraction, including sand for restoring beaches, except in biologically sensitive areas.

(6) Restoration purposes or creation of new habitat areas.

(7) Nature study, mariculture, or similar resource-dependent activities.

(8) Minor fill for improving shoreline appearance or public access to the water.

(b) The design and location of new or expanded facilities shall, to the extent practicable, take advantage of existing water depths, water circulation, siltation patterns, and means available to reduce controllable sedimentation so as to diminish the need for future dredging.

. . .

(d) For water areas to be diked, filled, or dredged, the commission shall balance and consider socioeconomic and environmental factors.

The proposed modifications (described above in Section II) to the previously-concurred with dredging and disposal activities within the Port of Los Angeles need to be examined for consistency with Section 30705 of the Coastal Act. That section states in part that water areas may be dredged and filled when consistent with a port master plan and when the proposed project is an allowable use.

The dredging to deepen the East Basin in the Cerritos Channel to –53 feet mean lower low water, expanding the size of the Southwest Slip landfill by eight acres, creating a two-acre landfill at the south end of Berth 100, constructing improvements to the Los Angeles County Flood Control Channel in the Southwest Slip, constructing the Seaplane Lagoon eelgrass restoration area north of Pier 300, and placing 4.7 million cubic yards of clean dredged material at the proposed Pier 400 submerged storage site, are allowable uses under Section 30705(a)(1, 2, and 6).

POLA port master plan amendments have been certified by the Commission over the past nine years in order to provide for the ongoing expansion of the port. Commission action on those amendments typically preceeded action on related federal consistency determinations to allow for conformance with the Section 30705(a) requirement that dredging and filling be "...consistent with a certified port master plan...." A POLA port master plan amendment (No. 21, for the proposed channel deepening, landfills, and terminal development) is scheduled to be

acted on by the Commission at its May 2002 meeting prior to consideration of this consistency determination. If the Commission certifies the amendment, then the development proposed in the consistency determination would be consistent with the port master plan. However, should the amendment not be certified, then the development proposed in the consistency determination would not be consistent with the master plan.

The proposal to store approximately 4.7 million cubic yards (mcy) of clean dredged material at a diked, 125-acre footprint adjacent to the southeast corner of the Pier 400 landfill is a concept similar (but not identical) to dredged material storage projects undertaken in the Port of Long Beach. POLB master plan amendment No. 11 (certified by the Commission in May 1998) provided for the following:

> *Temporary storage or permanent disposal of clean dredged material from Port of Long Beach development projects, deemed suitable for unconfined aquatic disposal and unsuitable for beach replenishment, at existing deepwater borrow sites in the Southwest Harbor Planning District up to an elevation approximately –40 to –45 feet MLLW as shown in Figure 2.*

The POLB estimated that the combined capacity of the two sites (220 acres total) was approximately five million cubic yards (**Exhibit 8**).

The Commission's adopted findings stated in part that:

> *The Commission also finds that the concept of beneficial reuse of dredged sediments on the scale proposed by the Port of Long Beach (sediments that would typically be dumped at the LA-2 ocean disposal site) conforms with Section 30708(d) of the Coastal Act, which states in part that port-related development shall provide for other beneficial uses consistent with the public trust. The Commission and other state and federal regulatory agencies that review port development and expansion in southern California consistently urge the Port of Long Beach (and other ports and agencies that dredge in coastal waters) to pursue alternatives to ocean dumping of clean dredged sediments deemed unsuitable for beach replenishment. Reuse of dredged sediments has occurred when channel dredging coincided with landfill construction (for instance, the Pier J expansion in the Port of Long Beach and the Pier 300 and 400 projects in the Port of Los Angeles). However, in situations when the ports undertake a stand-alone dredging project (either maintenance or deepening), clean dredged sediments typically go to the LA-2 or LA-3 ocean disposal sites due to an absence of alternative upland or in-water disposal sites or because construction schedules for separate dredging and landfill projects cannot be coordinated.*
>
> *The Commission now has the opportunity to certify a proposal that could lead to the conservation of clean, dredged sediments for future beneficial reuse. While not without some adverse, short-term impacts on marine resources at the sediment storage site (as noted earlier in this report), the proposal would also generate: (1) benefits to the marine environment by reducing the volume of dredged materials dumped at the LA-2 and LA-3 ocean disposal sites; (2) benefits to the Port from having a readily available source of*

construction-grade landfill material for port-related developments; and (3) benefits to regulatory agencies that may need clean capping materials for remediating contaminated offshore sites or constructing confined aquatic disposal sites. In conclusion, the Commission finds that the proposed amendment provides support for future high-priority, port-related development, provides for the beneficial use of coastal resources within the Port of Long Beach, and conforms with Section 30708(d) of the Coastal Act.

Dredged material storage and reuse at the outer harbor site is now occurring. In 1999 the Port of Long Beach placed 3.1 mcy of clean dredged material from the Queen's Gate channel deepening project into the outer harbor borrow pit. In 2000 approximately 1.4 mcy were removed from the pit for use in the port's Navy Mole landfill. Later that same year 25,000 cubic yards of dredged material was deposited in the borrow pit (Robert Kanter, POLB, April 10, 2002).

The proposal by the Corps of Engineers to construct the Pier 400 submerged storage site differs from the referenced POLB project in that the latter involved filling two existing borrow pits and an area between the pits, while the former involves constructing rock dikes to contain dredged material up against the Pier 400 landfill and raising the elevation of the harbor floor from –30 to –40 feet MLLW up to –15 feet MLLW, with eventual settlement to –20 feet MLLW. In both instances, however, the projects allow for dredging, removal, and reuse of the sediments placed at the storage sites. The potential marine resource impacts associated with the Pier 400 submerged fill storage site proposal are addressed in Sections B and C of this report.

As documented in the following sections, the project will have no significant adverse effects on coastal resources and no additional mitigation measures (beyond the measures already incorporated into the project by the Corps of Engineers) are necessary. Therefore, the Commission finds that the proposed project, as modified, is consistent with the dredge and fill policies of the California Coastal Management Program (Section 30705 of the Coastal Act).

B. <u>Water Quality and Marine Resources</u>. Section 30705 of the Coastal Act provides in part that:

. . .

(c) Dredging shall be planned, scheduled, and carried out to minimize disruption to fish and bird breeding and migrations, marine habitats, and water circulation. Bottom sediments or sediment elutriate shall be analyzed for toxicants prior to dredging or mining, and where water quality standards are met, dredge spoils may be deposited in open coastal water sites designated to minimize potential adverse impacts on marine organisms, or in confined coastal waters designated as fill sites by the master plan where such spoil can be isolated and contained, or in fill basins on upland sites. Dredge material shall not be transported from coastal waters into estuarine or fresh water areas for disposal.

(d) For water areas to be diked, filled, or dredged, the commission shall balance and consider socioeconomic and environmental factors.

Section 30706 of the Coastal Act provides in part that:

> *In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:*
>
> *(a) The water area to be filled shall be the minimum necessary to achieve the purpose of the fill.*
>
> *(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water. . . .*

Section 30708 of the Coastal Act provides in part that:

> *All port-related developments shall be located, designed, and constructed so as to:*
>
> *(a) Minimize substantial adverse environmental impacts.*
>
> . . .
>
> *(d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible. . . .*

Water quality issues associated with the consistency determination are examined in this staff report from two perspectives: (1) water quality protection measures associated with the proposed project modifications to be implemented during project construction; and (2) analysis of the water quality-related reports (sediment disposal decisions, circulation and water quality modeling, and post-project water quality monitoring) submitted by the Corps as a part of commitments made in the Phase 1 consistency determination (CD-050-00).

The Corps of Engineers' Phase 1 consistency determination, the associated Draft EIS, and the Commission's adopted findings for that consistency determination documented in great detail the existing water quality conditions in the Port of Los Angeles, and examined the potential project impacts and proposed mitigation measures for the Channel Deepening Project. Those documents are incorporated by reference into this report. The water quality monitoring program and water quality protection commitments made by the Corps of Engineers for the Channel Deepening Project, as outlined in CD-050-00, remain in effect for the proposed project modifications.

(1) Project Modifications. The subject consistency determination includes the following project modifications that need to be examined for their potential effects on water quality: disposal of 4.7 mcy of dredged material at the Pier 400 submerged fill site, disposal of all contaminated sediments at the expanded Southwest Slip fill site and improvements to the flood

control channel in the Southwest Slip, disposal of fill to create a two-acre landfill at Berth 100, and dredging to deepen the East Basin in the Cerritos Channel.

Water quality in the project modification areas would be affected during dredge and fill operations, due primarily to increases in turbidity, decreases in dissolved oxygen, increases in nutrients, and increases in contaminants in the immediate vicinity of operations. These localized water column impacts will in turn affect fish and marine birds in the project area. However, any adverse effects will be limited due to the nature of the dredged materials, the short-term nature of the water column changes, and the ability of fish and birds to avoid the turbidity plumes generated by project operations.

In addition, the expanded landfill in the Southwest Slip and related improvements to the Los Angeles County flood control channel at this location will cap existing contaminated sediments, prevent resuspension of the contaminated sediments, and prevent release of contaminants into the water column. Dredging of approximately 650,000 cubic yards of contaminated sediments (from four sites in the Main Channel, West Basin, Southwest Slip, and Berth 100) and their placement in the Southwest Slip landfill will provide significant, long-term water quality benefits in the Port of Los Angeles.

The project modifications will be subject to the same water quality protection measures previously attached to the overall project, including:

> *A Section 401 (of the Clean Water Act) Certification from the RWQCB for dredging and filling activities that contains conditions including standard Waste Discharge Requirements (WDR).*
>
> *Monitoring to ensure that return water flow from disposal of dredge material behind landfill dikes meets RWQCB requirements for settleable solids and toxic pollutants.*
>
> *Contaminated sediments will be placed and confined in the in-harbor disposal site in such a manner that the contaminants cannot enter harbor waters after the fill is complete.*

The Port of Los Angeles' Port Master Plan Amendment No. 21 (for the Channel Deepening Project) also addresses water quality protections for the project construction activities, including the proposed modifications which are the subject of this consistency determination:

> *Additionally, the Port of Los Angeles is subject to the requirements of the Los Angeles County Storm Water Permit for operation of Port facilities and the Construction Activities Storm Water General Permit for Port construction activities. The Port is actively involved in ensuring compliance with these NPDES permits, including (1) participation by various Port divisions in storm drain maintenance activities, street sweeping, implementation of BMPs, spill response activities, etc., (2) ongoing participation in various City-wide and regional task forces (including the Dominquez Channel Watershed Advisory Committee, the LA Region Contaminated Sediment Task Force) to facilitate interagency coordination and remain current on applicable storm water regulations and activities, (3) periodic training of*

Port employees, contractors and tenants to ensure compliance, (4) development of guidance documents for use by Port employees, contractors and tenants to ensure permit compliance, (5) inspection of construction sites by Port inspectors to ensure compliance with construction BMPs, (6) application of the recently adopted SUSMP [Standard Urban Stormwater Mitigation Plan] *criteria in the design of Port facilities to capture and treat the first 0.75 inches of rainfall from storm events, and (7) active participation in various studies to support Total Maximum Daily Load (TMDL) development in the harbor area, including the Dominquez Channel.*

Port tenants are subject to regulation under the Industrial Activities Storm Water General Permit and are required to file a Notice of Intent if warranted based on the nature of their operations. The Port has taken a proactive approach in assisting tenants with their stormwater permit compliance by developing and providing Port tenants with model SWPPP documents oriented towards the various types of industrial uses within the Port.

Extensive water quality monitoring conducted during Stages 1 and 2 of the Pier 400 Deep Draft Navigation Improvement Project, including the dredging and disposal of sediments of similar physical, chemical, and locational characteristics when compared to sediments proposed for dredging in the proposed project, failed to detect any significant, adverse, long-term impacts to water quality in the outer harbor as a result of dredging or disposal activities, and none are anticipated for the similar inner and outer harbor operations associated with the proposed project modifications.

(2) Water Quality Reports. In the Phase 1 consistency determination for the POLA Channel Deepening Project (CD-050-00), the Corps committed to submit the following sediment and water quality related reports to the Commission as a part of the Phase 2 consistency determination for the project:

- Final design decisions on the disposal location for contaminated and clean sediments.
- Final EPA review of sediment test results.
- Review by the Contaminated Sediments Task Force of the proposed disposal of contaminated sediments.
- Results of modeling by the Corps of potential circulation changes, and the inferred water quality effects, in harbor waters between Cabrillo Beach and the Main Channel from four Cabrillo Shallow Water Habitat development scenarios.
- A post-project water quality monitoring program for harbor waters between Cabrillo Beach and the Main Channel.

Analysis of these submittals is provided below.

(a) Final Design Decisions on Sediment Disposal. The Phase 1 consistency determination for the project proposed that 600,000 cubic yards of contaminated sediments be placed in the Southwest Slip and/or Pier 300 expansion landfills, and that 2.4 million cubic yards (mcy) of clean sediments be disposed at the LA-2 and/or LA-3 ocean disposal sites. The Corps deferred these two disposal site decisions until the Phase 2 consistency determination. As noted earlier in the Project Description, the Corps now proposes to place 650,000 cubic yards (an increase over the Phase 1 volume estimate) of contaminated sediments inside a 25-acre confined disposal facility located inside the west landfill in the Southwest Slip, and to place 4.7 mcy of clean sediments (2.9 mcy from proposed channel deepening and 1.8 mcy from excess surcharge material from Pier 400) at the Pier 400 submerged fill site (**Exhibit 2**). No dredged material will be disposed at either of the ocean disposal sites. The rationale for selection of the proposed Pier 400 submerged fill site is examined above in Section VIII(A) of this staff report.

The Corps' Review of Chemical and Biological Data on Sediments for the Channel Deepening Project, Port of Los Angeles (January 2002) collects and presents sediment testing results for all of the sediments involved in the Channel Deepening Project. The report identifies those dredged sediments that are suitable and unsuitable for unconfined aquatic disposal. The Summary Report from that document is provided in **Exhibit 9** of this report.

The Corps' Draft Contaminated Sediment Management Plan (CSMP) (January 2002) describes in detail the plans for dredging and disposal of the project's contaminated sediments. The document states that:

> *The reclamation at the Southwest Slip West Fill is part of the development for a new container terminal in the West Basin. . . The site features two deep depressions inside the area designated for reclamation. These depressions, also identified as tubs, are approximately to –50 feet MLLW.*
>
> . . .
>
> *The dimensions of the CDF* [confined disposal facility] *have now been determined by the boundaries on the north side (LACFC Channel), the west and south side (existing landfill limits) and on the east side by locating the rock dike at a position where maximum use is made of one tub, as well as placing most material from FM-1, Berth 100 South Extension, and the Southwest Slip dike foundations and basin dredging below an elevation of approximately –12 feet MLLW.*

Additional information on the proposed dredging and disposal of contaminated sediments contained in the CSMP is provided in **Exhibit 10** of this report.

The CSMP also includes water quality monitoring protocols for contaminated sediment dredging and disposal operations (**Exhibit 11**). The monitoring plan states that "for every item where the [monitoring] requirements are not met, the discharger shall submit a statement of actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction."

(b) Final EPA Review of Dredged Sediment Test Results. The Corps committed to include in this Phase 2 consistency determination evidence of final U.S. EPA review of sediment test results for the project. **Exhibit 12** is the February 20, 2002, suitability concurrence memorandum from EPA to the Corps. This document reviews the Corps' suitability determination for all of the proposed dredged materials, including contaminated sediments and materials suitable for unconfined aquatic disposal. The memo confirms the suitability concurrences previously made by EPA for dredged materials evaluated in the POLA Main Channel Deepening Project, and provides concurrence on the Corps suitability determinations for the project modifications, which are the subject of this consistency determination.

(c) Contaminated Sediment Task Force Review. The Corps committed to include in this Phase 2 consistency determination evidence of review by the Los Angeles Region Contaminated Sediments Task Force of the proposed disposal of project contaminated sediments. The Task Force's Advisory Committee (AC), comprised of one representative each from U.S. EPA, California Regional Water Quality Control Board – Los Angeles Region, California Department of Fish and Game, California Coastal Commission, and the environmental group Heal the Bay, held four meetings to review the Channel Deepening Project in late 2001 and early 2002 with representatives from the Corps of Engineers and the Port of Los Angeles. Members of the Advisory Committee were also provided copies of the Corps' Draft Contaminated Sediments Management Plan. **Exhibit 13** is the April 9, 2002, Port of Los Angeles Channel Deepening Project – Final Contaminated Sediments Task Force Advisory Committee Memo. The memo states in part that:

> *This memo is intended to serve as a record of comments provided by the AC during the meetings and to document project modifications made in response to comments of the AC. It is also a record of key points of agreement regarding dredging and disposal of contaminated sediments, and any areas of continuing disagreement.*

Regarding the proposed placement of contaminated sediments in the Southwest Slip west landfill, the memo states that:

> *The design presented in the Contaminated Sediments Management Plan (CSMP) expanded the West Fill from 15 to 23 acres in place of the previously proposed CAD [confined aquatic disposal site]. This design met the requirements to contain all sediments unsuitable for ocean disposal, avoid navigational impacts to the liquid bulk terminal, and provided an alternative to placing a CAD site in the harbor.*
>
> *The design alternative for the Southwest Slip Fill Site as presented in the CSMP was determined to be the most desirable option by members of the AC.*

The memo also includes discussion of other elements of the Channel Deepening Project, including the Pier 400 Submerged Storage Site, Malaga mudstone dredged materials, and water quality monitoring. The Advisory Committee recommendation on the Pier 400 project element is more appropriately examined in Section C of this report.

Regarding the suitability of dredged Malaga mudstone for unconfined aquatic disposal, the Advisory Committee memo states that:

> *Formation materials in the channel entrance are classified as Malaga mudstone. These materials were initially proposed to be placed offshore at the LA-3 ocean disposal site in the September 2000 EA. The AC voiced dissenting opinions on this issue. Members from the US EPA, and the LARWQCB disagreed with this option, preferring to see the surplus material kept within the port for future reuse. A proposal to place the Malaga mudstone within the Cabrillo Shallow Water Habitat Expansion (CSWHE) was made. However, as design proceeded it quickly became clear that there would not be sufficient volume within the CSWHE to contain all of the Malaga mudstone that required dredging and disposal as part of the proposed project. To address this, the area directly south of Pier 400 was proposed as a temporary sediment storage site for sediments that otherwise would be disposed of at the LA-3 ocean disposal site. The design of the Pier 400 Submerged Storage Site places the Malaga mudstone in the bottom of the site, to be overlain by fine-grained sediments removed from the Main Channel. The Malaga mudstone is low in organic carbon and would serve as a poor substrate for recolonization by benthic organisms. The Main Channel sediments are much higher in organic carbon and would be more easily and quickly recolonized following completion of construction.*
>
> *The location of Malaga mudstone in a temporary submerged storage site as described above was acceptable to the AC members representing the U.S. Environmental Protection Agency (US EPA), the Los Angeles Regional Water Quality Control Board (LARWQCB), the California Department of Fish and Game (CDFG) and the California Coastal Commission (CCC). The AC member representing Heal the Bay did not support this option.*
>
> *Although Malaga mudstone materials were determined to be suitable for ocean disposal by the Corps, with the U.S. EPA concurring, and have previously been dredged and disposed of within the Outer Harbor and at the LA-2 ocean disposal site, they contain naturally occurring elevated levels of metals. It is the position of most of the members of the AC that Malaga mudstone is suitable for unconfined ocean disposal and that the naturally occurring metals do not represent a threat to the environment. Further, covering the Malaga mudstone with Main Channel sediments will provide additional seclusion from the benthic environment. It is Heal the Bay's position that the Malaga mudstone should undergo bioassay testing prior to any dredging or disposal of these sediments.*

Regarding the water quality monitoring plan, the Advisory Committee memo states that:

> *The CSMP contained a proposed water quality monitoring plan. One recommendation proposed by the AC was made to the monitoring plan. The water-sampling requirement will be changed from a one-time event to once per month during dredging of sediments unsuitable for ocean disposal. Dredging of sediments suitable for ocean disposal would be monitored by the weekly monitoring requirements, but chemical analyses of water samples would not be required. It is estimated that it will take approximately three months to dredge*

and dispose of the sediments unsuitable for ocean disposal resulting in a total of three water-sampling events.

All members of the AC except Heal the Bay found the plan acceptable with the proposed change. In comments addressed to the AC after the last meeting, they expressed the concern that the monitoring plan is not sufficiently defined and a contingency plan of BMPs that will be implemented in the event that monitoring indicates an exceedance of water quality standards has not been developed. Subsequently the POLA is addressing these concerns by providing a more specifically defined plan, including contingency BMPs.

The Advisory Committee of the Los Angeles Region Contaminated Task Force undertook and completed its review of the proposed disposal of project contaminated sediments. The Advisory Committee reviewed the Corps' dredge material suitability determination, EPA's suitability concurrence, and concluded that the proposed placement of all project contaminated sediments in the proposed Southwest Slip west landfill was the most desirable option for management of those sediments. The Commission agrees with this conclusion and finds that the proposed option is consistent with the water quality and marine habitat protection policies of the CCMP.

(d) Modeling of Water Circulation and Quality at Cabrillo Beach. The Commission's adopted findings for the Phase 1 consistency determination (CD-050-00) for the proposed project included the following:

To further address these concerns regarding circulation and water quality in the project area between Cabrillo Beach and the Main Channel, the Corps stated that the second consistency determination for this project will now incorporate the results of modeling by the Corps of potential circulation changes, and the inferred water quality effects, in harbor waters between Cabrillo Beach and the Main Channel from four shallow water habitat development scenarios: no shallow water habitat; the shallow water habitat as it presently exists; the existing shallow water habitat with the proposed expansion; and the existing shallow water habitat with the proposed expansion and with a "hole in the breakwater", that is, a connection between the waters offshore of Cabrillo Beach and the ocean through the San Pedro Breakwater.

The Corps submitted as a part of the Phase 2 consistency determination the lengthy and detailed technical report, Water Quality and Hydrodynamic Analysis of the Cabrillo Beach Shallow Water Habitat (February 2002). The Corps report describes the four modeling scenarios as follows:

Scenario 1: plan-form geometry and bathymetry of San Pedro Bay as they existed in year 2001, except that pre-construction depths are specified in the Cabrillo Shallow Water Habitat (CSWH).

Scenario 2: as-built configuration and depth of the CSWH are included.

Scenario 3: incorporates the recommended plan for expanding the Port of Los Angeles, which includes the proposed expansion of the CSWH.

Scenario 4: incorporates the recommended plan expansions and also includes an opening in the San Pedro Breakwater.

The utility of these modeling scenarios is then addressed:

Comparison of modeling results between scenarios 1 and 2 permits assessing the impact that the construction of the habitat has had on water circulation and water quality, and comparison of modeling results between scenarios 2 and 3 provides insight into potential impacts that an expansion may have on water circulation and water quality. . . [Scenario 4] investigates whether an exchange in waters between the study area and the open ocean improves water circulation and water quality at the inner Cabrillo beach.

The report includes extensive technical information on hydrodynamic testing, hydrodynamic modeling of the four scenarios, the water quality model, water quality modeling results, and a particle tracker to investigate circulation patterns in the Cabrillo Beach and Cabrillo Shallow Water Habitat.

Lastly, the report states in part that based on the modeling results of the four scenarios, the following conclusions were reached:

1. There are only minor differences between water circulation and water quality results for scenarios 1 and 2, indicating that the construction of the habitat had no significant impact on waters within 300 ft to 500 ft of the inner Cabrillo Beach. Currents approximately 3000 ft from shore were strengthened as a result of its construction; however, water quality was not impacted within western San Pedro Bay.

2. There are only minor differences between water circulation and water quality results for scenarios 2 and 3, indicating that expanding the habitat will have no significant impact on water circulation and water quality in western San Pedro Bay.

3. An opening in the breakwater can have some positive impact on water circulation and water quality in western San Pedro Bay. This improvement is attributed to the mixing of open-ocean and bay waters. However, the opening had little impact on waters immediately adjacent to the beach (i.e. in the area used for swimming).

Scenario 4 was conducted at a "proof-of-concept" level for determining whether an opening warrants further study. This study was therefore limited, in terms of hydrodynamics, to currents and did not investigate potential impacts imposed by waves propagating through the opening and into the open water area east of Cabrillo Beach. Although the potential impacts described below have not been studied, and are therefore conjecture, an opening in the breakwater leads to several issues that should be addressed before giving this option further consideration. These issues include breakwater stability, erosion of the harbor

bottom (including the CSWH), harbor resonance, beach stability/erosion, and public use of beaches and their safety.

The Commission finds that the water circulation (and inferred water quality effects) modeling work undertaken by the Corps for the water area between Cabrillo Beach and the Main Channel satisfactorily documents that the existing Cabrillo Shallow Water Habitat (CSWH) and the proposed westerly expansion of the CSWH (concurred with by the Commission in CD-050-00 in July 2002) does not and will not generate significant adverse impacts on water circulation or water quality at Cabrillo Beach and adjacent offshore areas.

(e) Post-Project Water Quality Monitoring. The Commission's adopted findings for CD-050-00 included the following:

The Corps also has committed (as an additional element of the subject consistency determination) to undertake post-construction monitoring of circulation and water quality in the project area (between Cabrillo Beach and the Main Channel), and to submit a consistency determination for mitigation/remediation work if the monitoring results indicate unexpected adverse effects on circulation or water quality in the project area caused by the expansion of the shallow water habitat. Water quality in the project area will be evaluated by measuring dissolved oxygen, turbidity/transparency, and temperature. The Corps will include the circulation/water quality monitoring plan in the second consistency determination for Commission review and approval prior to finalizing and implementing the plan, and will submit the monitoring results as they become available to the Commission staff.

However, because of the phased review process for this project agreed to by the Corps of Engineers, the Commission will review the final project design for disposal of contaminated sediments at in-harbor sites, the aforementioned circulation/water quality modeling results, and the post-construction circulation/ water quality monitoring plan at a later date in a second consistency determination in order to ensure that disposal of contaminated sediments and construction of the shallow water habitat expansion will not adversely affect circulation, water quality, and marine resources in the harbor, and to ensure that the project remains consistent with the water quality and marine habitat protection policies of the CCMP.

The Corps submitted as a part of the Phase 2 consistency determination the Cabrillo Beach Monitoring Plan (March 2002); the Executive Summary and Table of Contents are attached to this report as **Exhibit 14**. The Executive Summary states in part that:

The field monitoring plan is designed to provide an objective assessment of impacts from construction of the Cabrillo Shallow Water Habitat Expansion on circulation and water quality at inner Cabrillo Beach . . . The plan here exceeds [the requirement of the CCC for post-construction monitoring of circulation and water quality] *by also providing for a pre-construction data collection. The pre-construction data set will provide a baseline for an*

objective evaluation of any changed conditions after construction. The construction schedule could require up to 24 months.

Data will be collected to supplement the ongoing hydrodynamic and water quality measurements by the Corps and local partners. Circulation data include water levels, currents, dispersion, and dilution measurements. Water quality data include dissolved oxygen, temperature, turbidity, and transparency. The data will be supported by environmental and morphologic measurements including atmospheric pressure, temperature, wind velocity, and wading-depth beach profiles. Analysis of the data and assessment of changed conditions will be reported.

The Commission finds that the proposed post-project water quality monitoring program for the area between Cabrillo Beach and the Main Channel will adequately generate the type of technical information needed to confirm or disprove the results of the Corps' water circulation modeling results for this area. The commitment to monitor this area for potential changes in water quality characteristics as a result of the construction of the Cabrillo Shallow Water Habitat westerly expansion provides the Commission with the ability to ensure that project components will not over time adversely affect water quality and related recreational resources in this area.

In conclusion, the Commission finds that the proposed modifications to the Channel Deepening Project will generate only minor, short-term effects on water quality and marine resources in the Port of Los Angeles. Dredging and disposal activities will not result in any significant, adverse effects on the coastal zone due to the nature of the dredged materials, the location of dredging and disposal sites, and the aforementioned environmental commitments incorporated into the project. Therefore, the Commission finds that the proposed project, as modified, remains consistent with the water quality and marine habitat protection policies of the CCMP (Sections 30705, 30706, and 30708 of the Coastal Act).

C. **Environmentally Sensitive Habitat.** Sections 30706 and 30708 of the Coastal Act provide in part that:

30706. *In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:*

. . .

(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water. . . .

30708. *All port-related developments shall be located, designed, and constructed so as to:*

(a) Minimize substantial adverse environmental impacts.

. . .

(d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible. . . .

(1) Project Modifications. Proposed project modifications could potentially affect environmentally sensitive marine habitat used by two federally endangered species, the California least tern and the California brown pelican. The consistency determination calls for additional dredging to deepen the East Basin, increasing the size of the Southwest Slip fill from 35 to 43 acres, and constructing a two-acre fill at the southern end of Berth 100. These inner harbor locations are not considered significant foraging areas for terns or pelicans, and dredging, filling, and the related turbidity effects that will occur in these areas are not expected to adversely affect either species. Mitigation for the additional ten acres of inner harbor landfills will be obtained from existing credits in the port's harbor mitigation account and/or the port's Bolsa Chica mitigation account (**Exhibit 15**).

The consistency determination also proposes two new dredge material disposal sites in the port which could affect least tern and brown pelican foraging: the Pier 400 Submerged Storage Site and the Seaplane Lagoon Eelgrass Restoration Area. The consistency determination provides the following information on these two sites:

Pier 400 Submerged Storage Site. *It is anticipated that the overall area supports an infaunal community characteristic of the Outer Harbor. Use of the site as a disposal site will bury any organisms present in the pit. Colonization of the disposal site after disposal will occur as organisms along the edges migrated inward and as larvae settled from the water column. The species of larvae available for recruitment will be predominantly the common species present in the general area. Different sediment characteristics in the pits can influence species colonization, shifting the community towards more pollution /disturbance tolerant species such as Capitella capitata. However, colonization normally follows a pattern of succession until a dynamic community is established, usually in about 2 to 3 years.*

This area will be filled to a final elevation of –15' MLLW creating a de facto shallow water habitat. However, owing to the future need to re-dredge this area to move sediments out of storage for use as fill materials, no credits will be claimed for the creation of shallow water habitat. The site is expected to function as a shallow water habitat for a period of years offsetting the temporary loss of soft-bottom habitat by the temporarily increased value of shallow water habitat.

Seaplane Lagoon Eelgrass Restoration Area. *Raising the bottom elevation would require two to five feet of fill over the entire area. This will most probably result in the smothering of any marine organisms present. However, since the area will be used as an eelgrass*

mitigation site, the resulting eelgrass habitat will provide habitat that is considerably more valuable than the current soft-bottom habitat. Therefore, this impact is considered to be insignificant.

The National Marine Fisheries Service (NMFS) commented on the Draft SEA and proposed project modifications on February 12, 2002, as follows:

NMFS concurs with your conclusion that the proposed work will not result in significant impacts to Essential Fish Habitat (EFH) for those species covered by the Pacific Groundfish and Coastal Pelagics Fishery Management Plans. However, it should be noted that during a coordination meeting of December 13, 2001, it was agreed that the material deposited at the Pier 400 Submerged Storage Site would remain in place for a minimum of two years. Relevant sections of the DSEA should be modified to reflect this agreement. In view of the above, we do not believe further EFH conservation recommendations are necessary.

The California Department of Fish and Game (Department) commented on the Draft SEA and proposed project modifications on February 25, 2002, as follows:

The Department believes that the DSEA is adequate in its portrayal of impacts to fish and wildlife resources associated with the proposed project. However, as discussed in a December 3, 2001, Resource Agency meeting with the Department, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Port of Los Angeles, and the Corps, and documented in the meeting minutes, it was agreed that the Pier 400 Submerged Storage Site would be left alone for a minimum of 2 years prior to any disturbance. This should be noted in the final SEA.

Through its membership on the Advisory Committee of the Los Angeles Region Contaminated Sediments Task Force, the environmental group Heal the Bay expressed its opposition to the Pier 400 submerged storage site. The Advisory Committee reviewed the Channel Deepening Project and in its final memo on the project addressed the Pier 400 submerged storage site:

The design alternative for the Pier 400 Submerged Storage Site as presented in the Supplemental Environmental Assessment (SEA) was acceptable to the AC members representing the U.S. Environmental Protection Agency (US EPA), the Los Angeles Regional Water Quality Control Board (LARWQCB), the California Department of Fish and Game (CDFG) and the California Coastal Commission (CCC). The AC member representing Heal the Bay did not support this design alternative.

All members of the AC except Heal the Bay agreed that the storage of dredged materials for reuse is preferable to permanent disposal of the materials in an ocean disposal site. It is Heal the Bay's position that the impacts of creating such a site would not constitute beneficial reuse, but would result in the loss of habitat due to periodic disturbance and damage after the initial three year period. Because the POLA is not required to mitigate these impacts under the Safe Harbors Agreement, it is Heal the Bay's position that the storage site would result in the loss of 120 acres of outer harbor habitat. Heal the Bay

would prefer ocean disposal of clean sediment to the construction of the Pier 400 Submerged Storage Site.

As noted in the project description (Section II), mitigation was required for the loss of approximately eight acres of eelgrass due to construction of the 40-acre Pier 300 landfill (concurred with in the Phase 1 consistency determination). This Phase 2 consistency determination identifies the mitigation that will be provided for this habitat loss. The 15-acre mitigation site at the Seaplane Lagoon jetty will be created by placing approximately 110,000 cubic yards of clean silt and silty sands to raise the bottom elevation two to five feet to a final elevation range of –5 feet to –10 feet MLLW. Eelgrass will then be transplanted into the site using eelgrass from the Pier 300 Shallow Water Habitat and Cabrillo Beach eelgrass beds in accordance with National Marine Fisheries Service guidance (Southern California Eelgrass Mitigation Policy, last revised 2/2/99; **Exhibit 16**). Construction activities will generate minor, temporary adverse effects on water quality, primarily turbidity. However, over the long run, the proposed Seaplane Lagoon eelgrass restoration area will not adversely affect least tern or brown pelican foraging, but rather will improve foraging opportunities for these species by increasing the areal extent of productive eelgrass beds used by both species in San Pedro Bay.

Construction of the Pier 400 Submerged Storage Site will also generate temporary adverse turbidity effects during the 18-month disposal operation in an area within the foraging range of the least tern and brown pelican. As noted in the project description, approximately 4.7 million cubic yards of clean dredged material will be deposited and stored behind dikes and against the southeastern edge of the Pier 400 landfill, and will raise the harbor floor at this 125-acre footprint from the current –30 to –40 feet MLLW depth to –15 feet MLLW. Once dredge material disposal is completed and turbidity returns to normal levels, foraging opportunities and activity will not be adversely affected by the storage site. Given the new shallow water depth over this 125-acre area, there may be beneficial effects from this project element on least tern foraging.

Construction of the submerged storage site will replace deep water, soft bottom habitat with shallow water, soft bottom habitat. Recolonization of the submerged fill site by the infaunal community characteristic of the outer harbor is expected to take between two and three years. However, re-use of the stored dredged material at this site for future projects requiring fill material will disturb and/or eliminate sections of the 125-acre site. The Corps is not proposing to claim mitigation credits for the creation of this shallow water habitat as is usually done in San Pedro Bay when deep water habitat is transformed to shallow water habitat. A Safe Harbors Agreement between the Port of Los Angeles and the federal and state resource agencies will call for no mitigation credits to be generated by the submerged fill site and the shallow water habitat it will create, and call for no mitigation requirements when portions of the fill are removed at some future date(s). In addition, the Port of Los Angeles has committed to developing a management plan for the long term use of this site, including participation by the resource agencies and other interested parties in the decision-making process associated with future proposals for removal of fill from the site.

The Corps and the Port of Los Angeles have stated that beneficial reuse of dredged materials placed at this site will be conducted in a manner that minimizes adverse effects on marine habitat. This could be implemented by removing needed fill in discreet horizontal and vertical sections rather than scraping off the top layer of the 125-acre site. While projects that remove fill after the three-year period will generate adverse effects on this newly created shallow water habitat, the Commission believes that the overall benefits to the marine environment that arise from eliminating the disposal of 4.7 mcy of sediment at the LA-2 and LA-3 ocean disposal sites, from the beneficial reuse of these dredged materials (for future port landfills or, as was discussed in the review of the Port of Long Beach's sediment storage site, for capping contaminated sediments at White's Point off the Palos Verdes Peninsula), and from creating a significant additional shallow water area inside the San Pedro Breakwater together outweigh the impacts that will occur as a result of future fill removal projects.

Another project modification results from a more accurate delineation of the dredging footprint in the Main Channel south of the pilot station. As noted in the project description, dredging here will result in the loss of approximately 2.3 acres of shallow water habitat (defined as water less than –20 feet MLLW). While this 2.3-acre area is presently –18 to –19 feet MLLW and immediately adjacent to the Main Channel, the adverse effect of its elimination will be mitigated through the use of mitigation credits existing in the Port of Los Angeles' Outer Harbor Mitigation Bank. With this mitigation commitment, there will be no significant loss of environmentally sensitive marine habitat due to this segment of the channel deepening.

(2) California Least Tern Monitoring Commitment. In its Phase 1 consistency determination for the overall project (CD-050-00), the Corps of Engineers committed, as a part of this Phase 2 consistency determination:

> *. . . to undertake post-construction monitoring of least tern foraging activity in the project area, and to submit a consistency determination for mitigation/remediation work if the monitoring results indicate unexpected adverse effects on least terns caused by construction of the Pier 300 landfill expansion. The Corps will include the monitoring plan in the second consistency determination for Commission review and approval prior to finalizing and implementing the plan, and will submit the monitoring results as they become available to the Commission staff.*

The Corps submitted the report, Monitoring of Least Tern Foraging – Port of Los Angeles Deepening Project, 2001 (January 2002) as an element of the subject consistency determination; the summary of that document is attached to this report as **Exhibit 17**. The plan includes the following elements:

- Observations of least tern foraging activity at 29 stations throughout Los Angeles Harbor;
- Surveys are conducted weekly from April through September when the terns are present in the Harbor;
- Least tern behavior recorded for a 20-minute period at each station;

- Recorded data include number of terns exhibiting same behavior at same time, number of foraging dives, number of foraging flights, number of transit flights, tern life stage, date, time, and weather;

- The recorded data are analyzed for total percentage of each foraging behavior, mean behaviors per survey, and by nesting stage. Data are combined for similar stations (and corrected for number of stations) to compare foraging behavior among differing foraging habitats in the Harbor. Data are also compared with other survey results from previous years.

The proposed monitoring plan submitted by the Corps will generate the necessary information on least tern foraging in San Pedro Bay to allow the Corps and the Port of Los Angeles to determine whether the Pier 300 landfill expansion is adversely affecting least tern foraging. In addition, as committed to in the Phase 1 consistency determination, in the event that monitoring indicates that unexpected adverse effects on least terns are being caused by construction of the Pier 300 landfill expansion, the Corps has committed to submit a consistency determination to the Commission for mitigation and/or remediation of those adverse effects.

In conclusion, the Commission finds that the proposed project modifications will not generate significant, adverse effects on environmentally sensitive marine habitat in San Pedro Bay. With the mitigation measures outlined in the consistency determination and Draft SEA, and with the commitments made by the Corps in the Phase 1 and 2 consistency determinations regarding California least tern foraging monitoring and mitigation and eelgrass mitigation and monitoring, the Commission finds that the proposed dredging and filling, as modified, remains consistent with the fish and wildlife resource and habitat protection policies of the CCMP (Sections 30706 and 30708 of the Coastal Act).

D. Sand Supply. Section 30706 of the Coastal Act provides in part that:

> 30706. *In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:*
>
> . . .
>
> *(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful affects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water.*

The Corps of Engineers proposes to dispose up to 4.7 million cubic yards (mcy) of clean dredged material, suitable for unconfined aquatic disposal, at the proposed Pier 400 Submerged Storage Site. Approximately 2.9 mcy would come from proposed dredging and 1.8 mcy from excess

surcharge material (from past dredging) on the northwest quadrant of the Pier 400 landfill. While dredged material placed at this submerged site would not be available for beach replenishment, analysis indicates that this dredged material is not suitable for beach placement due to the predominately small grain size of the material. Since the material is predominately silt and clay, wave energy would move this relatively fine material off the beaches and out of the littoral system if the material were placed on a beach or in the nearshore zone. Therefore, the Commission finds that the 4.7 mcy of clean but structurally unsuitable dredged materials are not suitable for beach replenishment, and that the proposed disposal of this material at the proposed Pier 400 Submerged Storage Site is consistent with the sand supply policies of the California Coastal Management Program (Sections 30706 and 30708 of the Coastal Act).

E. Recreation. The Coastal Act provides in the following sections that:

> 30706. *In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:*
>
> . . .
>
> *(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water. . . .*
>
> 30708. *All port-related developments shall be located, designed, and constructed so as to:*
>
> *(a) Minimize substantial adverse environmental impacts.*
>
> . . .
>
> *(a) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible. . . .*

The proposed dredging and filling modifications that would occur at the Pier 400 submerged storage site, the Southwest Slip, Berth 100, the East Basin in the Cerritos Channel, and Seaplane Lagoon would not generate adverse effects on recreational activities in the Port. These dredge and landfill sites, except for the Pier 400 storage site, are not recreation areas due to the existing cargo and industrial activities that occur at these sites. No existing public access or recreation areas will be eliminated or created by the proposed project modifications. On-water recreational boating will be restricted in the immediate areas of active dredging and filling, and some inconvenience to recreational boaters traveling within the harbor will occur during project construction, but these restrictions would be temporary and are not considered significant impacts. Recreational boating will resume over the Pier 400 submerged storage site once construction is completed.

In its concurrence with the Phase 1 consistency determination for this project (CD-050-00), the Commission expressed concerns about the potential effects of expanding the Cabrillo Shallow Water Habitat (CSWH) site on public recreation. However, the Commission found that project dredging and filling will generate only temporary and minor effects on recreational boating and fishing in the vicinity of dredge and fill operations at CSWH. That finding was made with the commitment by the Corps to undertake further circulation/water quality modeling at this location and to produce a post-project water quality monitoring plan for this site, in order to ensure that the CSWH expansion will not cause a degradation in water quality or recreational opportunities at Cabrillo Beach. As discussed in Section B of this report, modeling was undertaken and the study results confirmed that no adverse effects would occur; a post-project water quality monitoring plan for this area was developed and will be used to analyze the modeling predictions. Therefore, the Commission finds that proposed dredge and fill activities in the Port of Los Angeles remain consistent with the commercial and recreational fishing and boating policies of the California Coastal Management Program (Sections 30706 and 30708 of the Coastal Act).

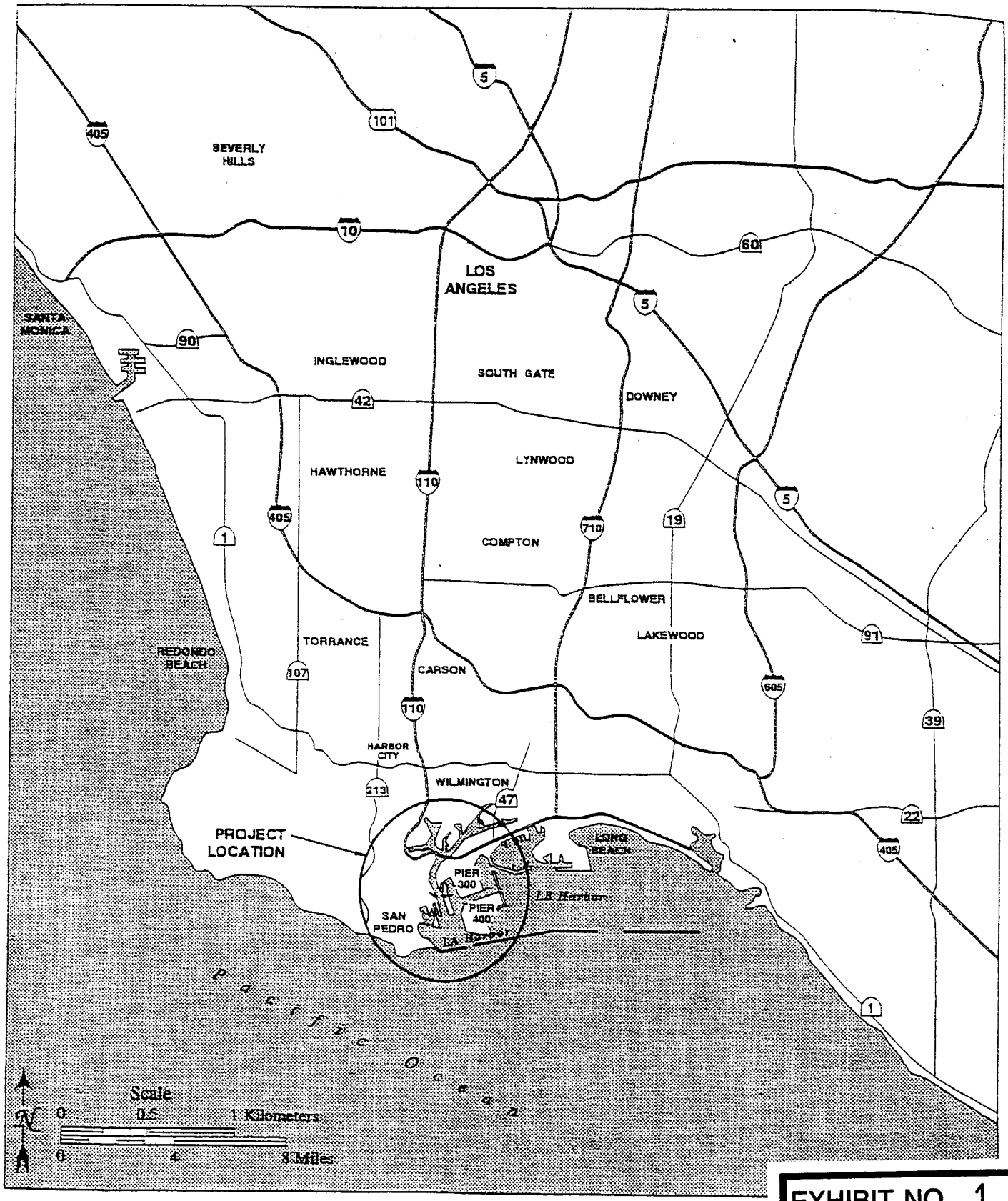
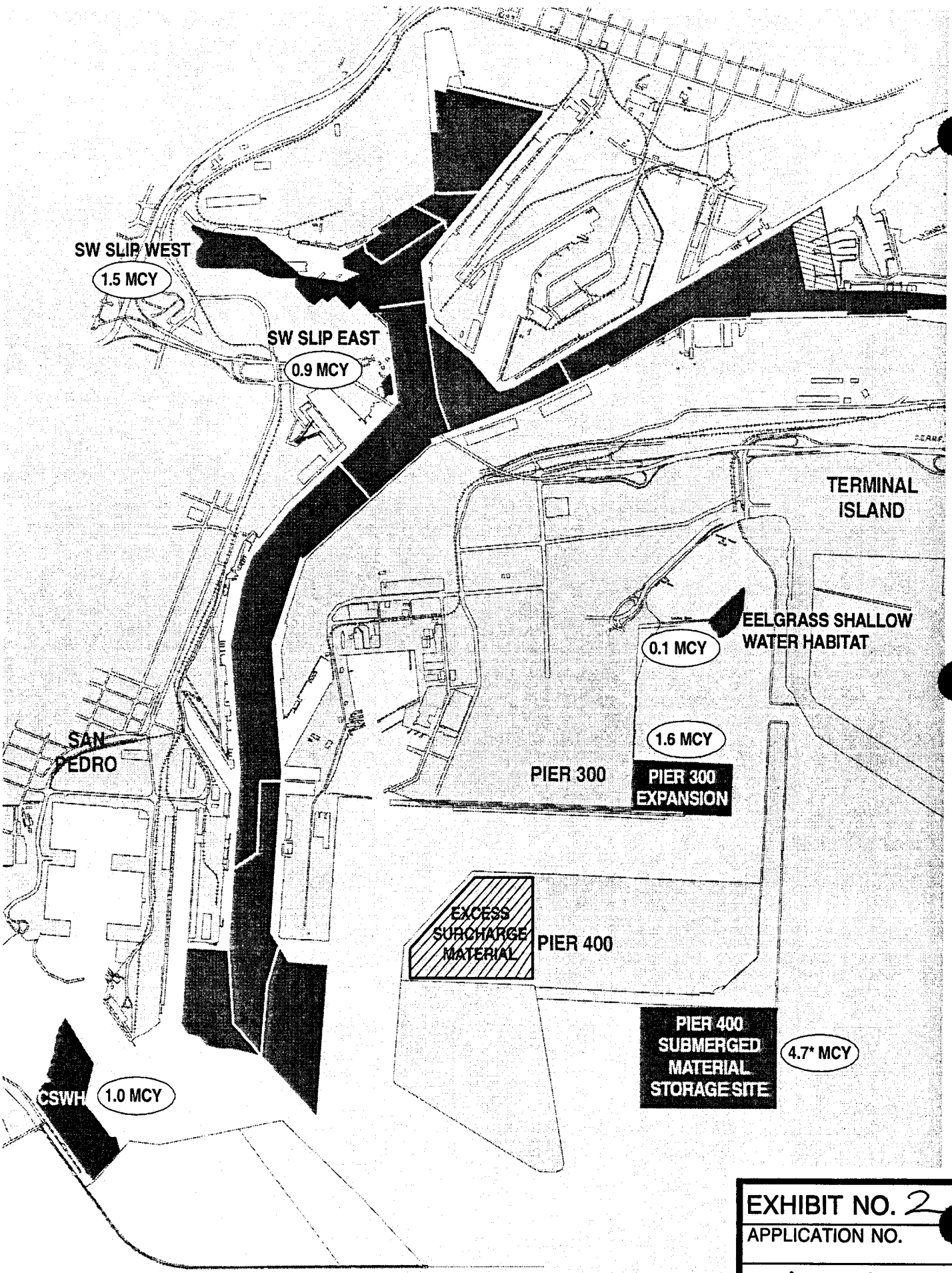


Figure 1: Project Area and Vicinity

EXHIBIT NO. 1
APPLICATION NO.
CD-006-02
California Coastal Commission



*THIS VOLUME INCLUDES 1.8 MCY OF PIER 400 EXCESS SURCHARGE MATERIAL

EXHIBIT NO. 2
APPLICATION NO.
CD-006-02
California Coastal Commission

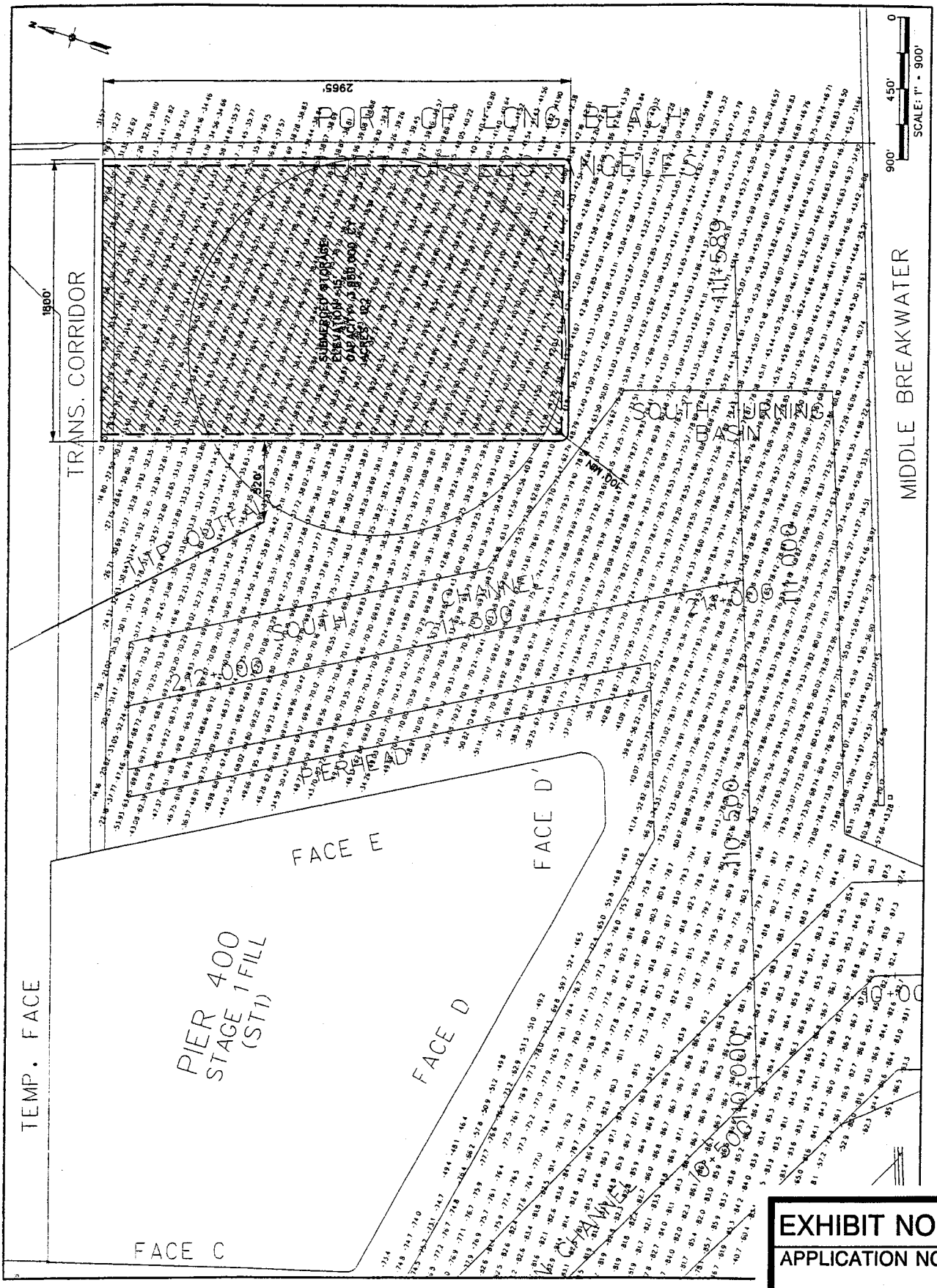


Figure 5 Pier 400 Submerged Storage Site

EXHIBIT NO. 3
APPLICATION NO.
CD-006-02
California Coastal Commission

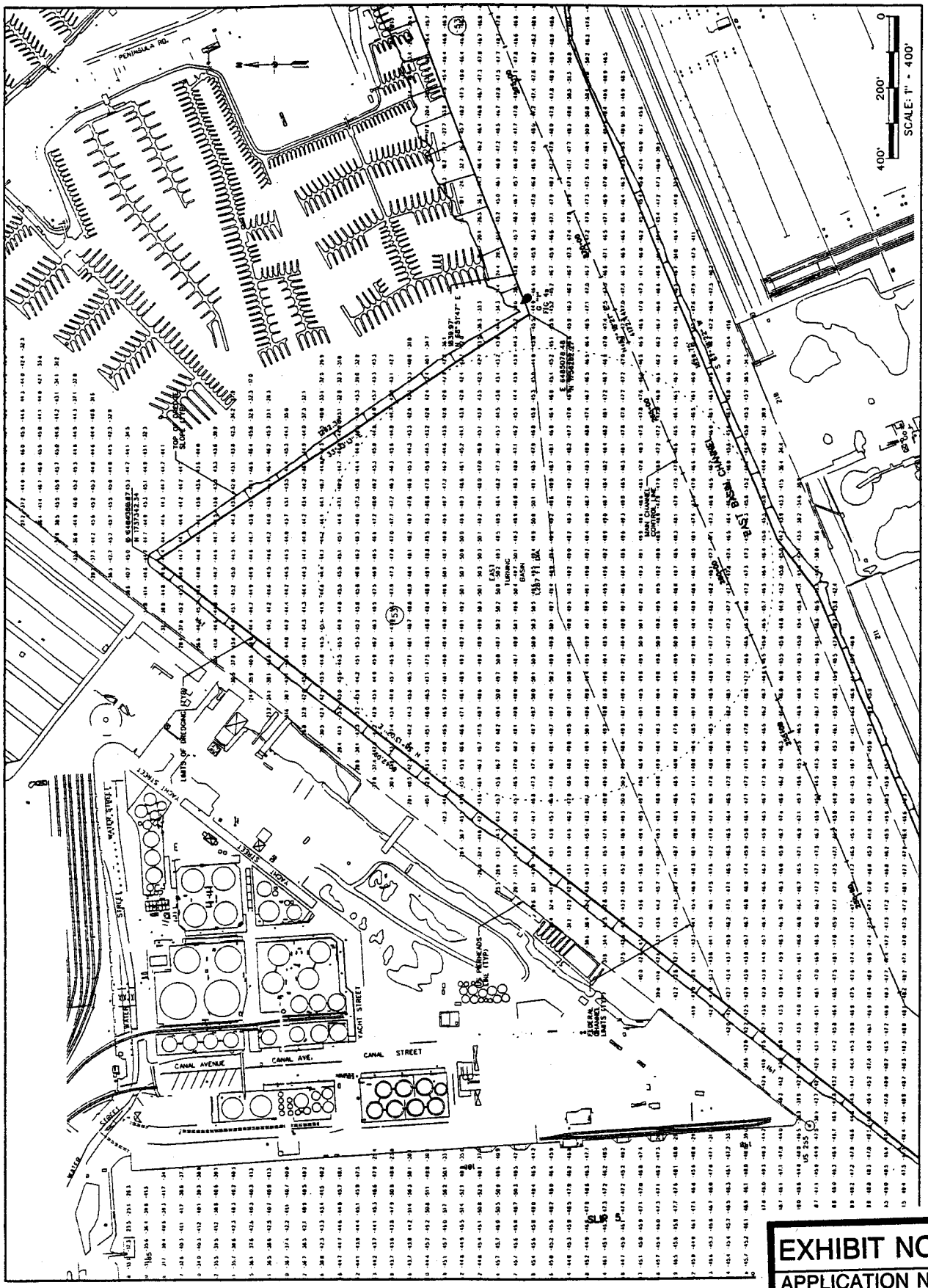


Figure 6 East Basin in the Cerritos Channel

EXHIBIT NO. 4
APPLICATION NO.
CD-006-02
California Coastal Commission

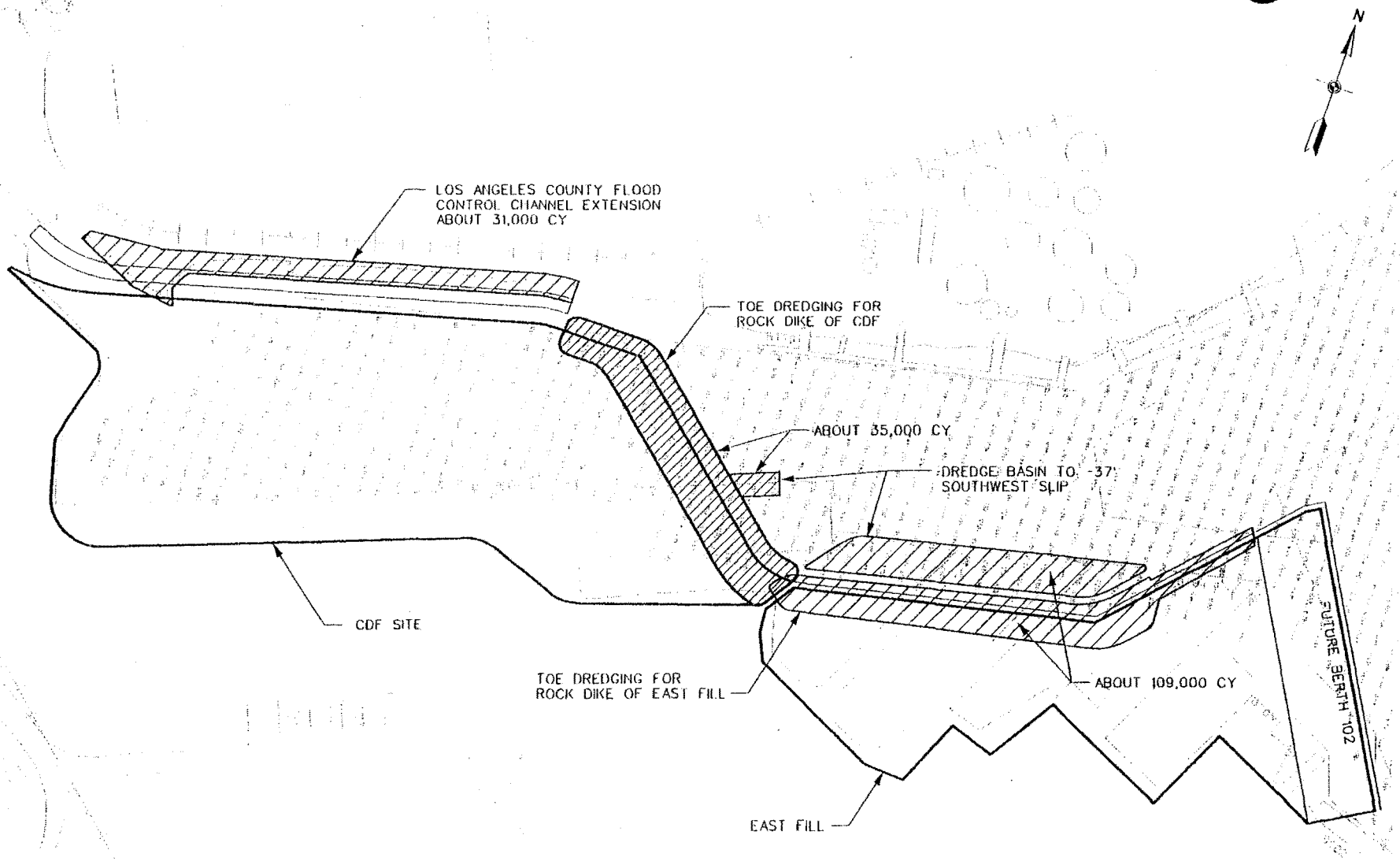


Figure 7 Southwest Slip Fill Site

AREAS CONSIDERED UNSUITABLE FOR OCEAN DISPOSAL AND DREDGED UNDER THIS PROJECT (D212)

NOTE:

1. FINAL QUANTITIES PENDING ON FINAL DESIGN ROCK DIKES AND LACFC CHANNEL

DRAFT, JANUARY 23, 2002

SOUTHWEST SLIP CONTAMINATED AREA

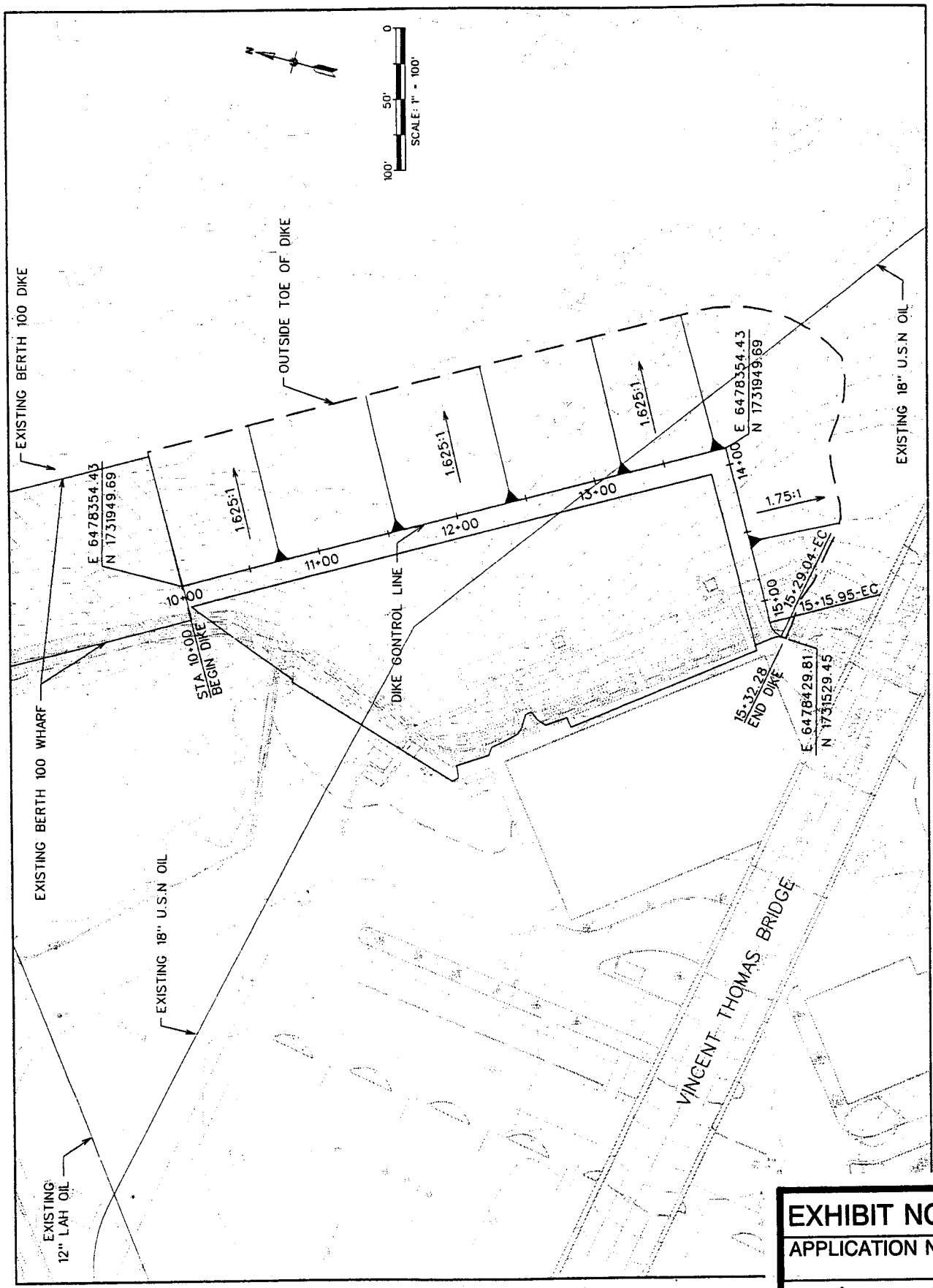


Figure 8 Berth 100 Dredge and Wharf Fill

EXHIBIT NO. 6
APPLICATION NO.
CD-006-02
California Coastal Commission

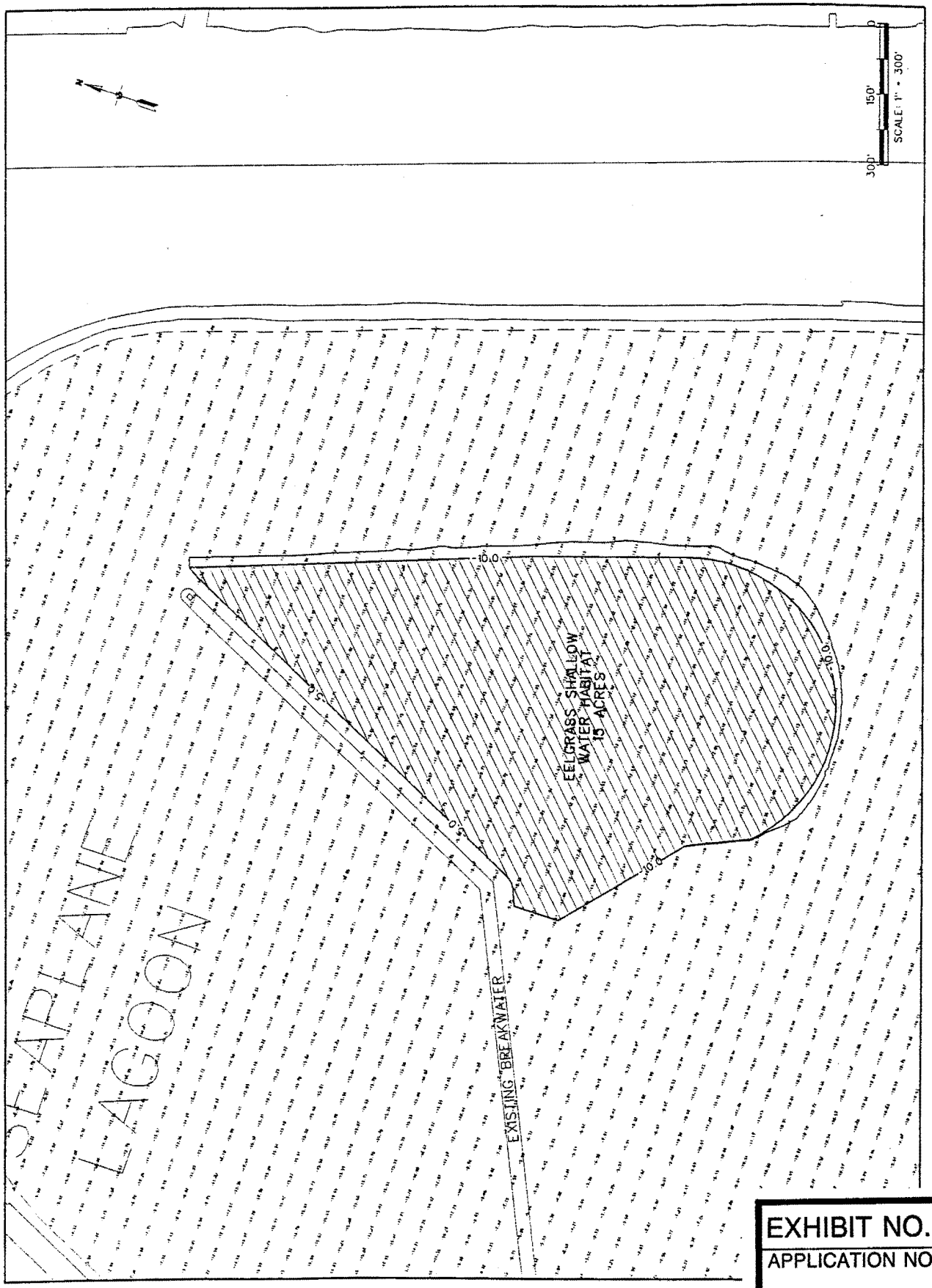
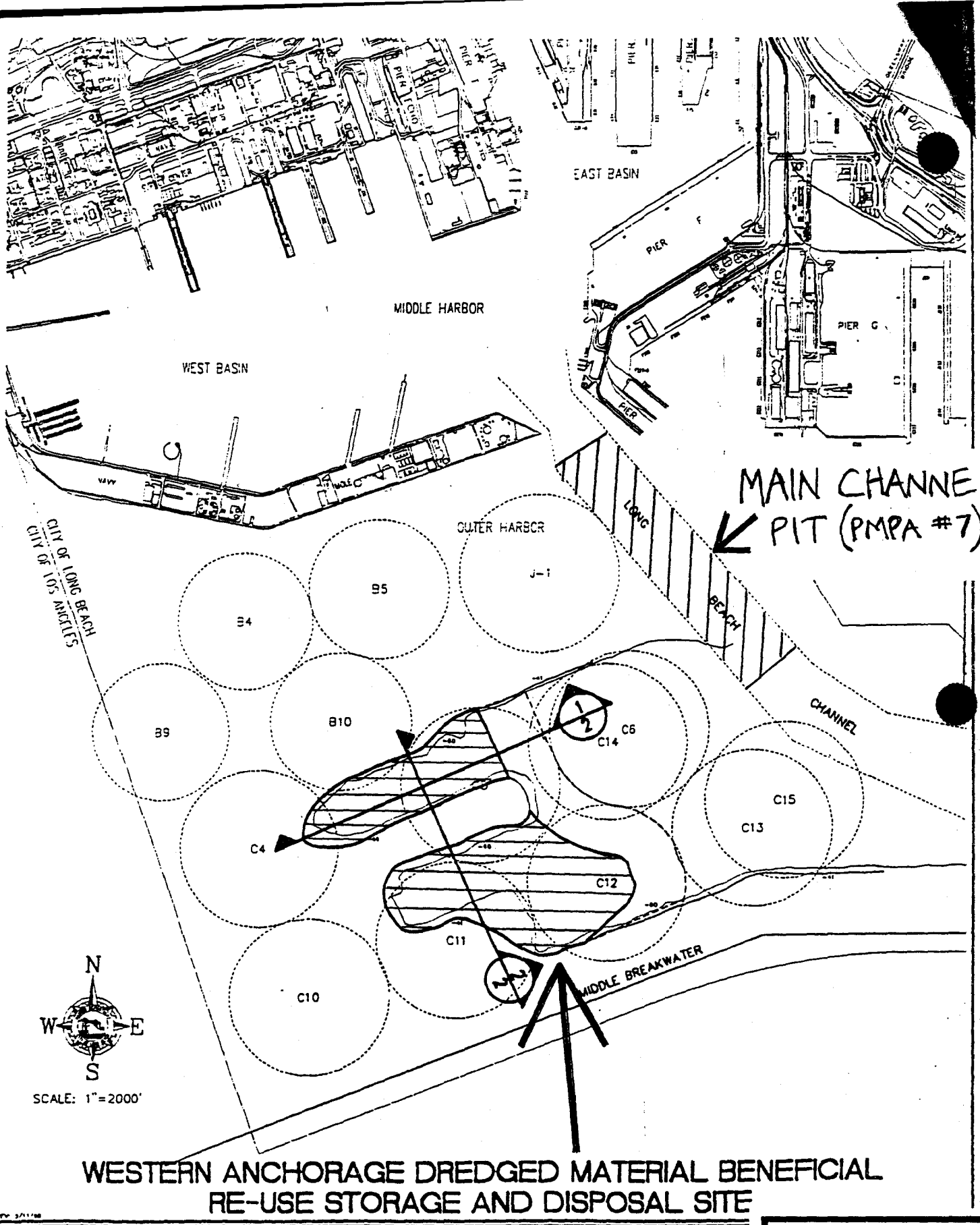


Figure 10 Seaplane Lagoon Eelgrass Restoration Area-Design

EXHIBIT NO. 7
APPLICATION NO.
CD-006-02
California Coastal Commission

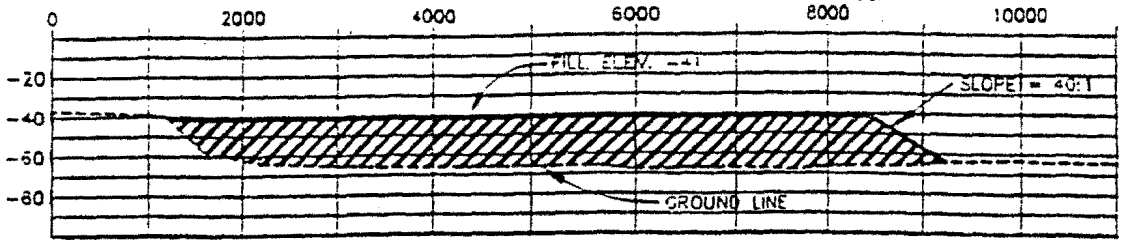


WESTERN ANCHORAGE DREDGED MATERIAL BENEFICIAL RE-USE STORAGE AND DISPOSAL SITE

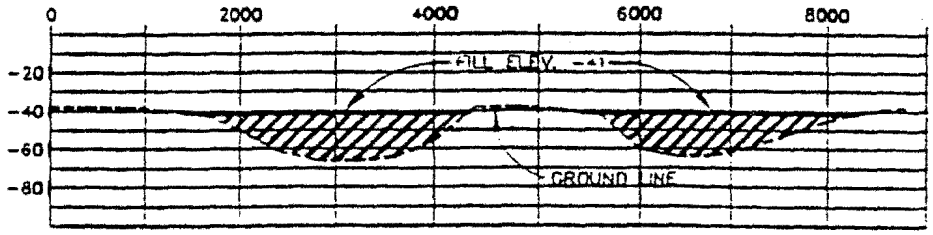
THE PORT OF LONG

925 HARBOR PLAZA P.O. BOX 570 LONG BEACH CALIFORNIA 90801

EXHIBIT NO. 8
APPLICATION NO.
CD-006-02
California Coastal Commission



SECTION 1



SECTION 2

SCALE: 1"=2000' H
1"= 100' V

Figure 3

Temporary Storage and Disposal Sites

THE PORT OF LONG I
925 HARBOR PLAZA P.O. BOX 570 LONG BEACH CALIFORNIA 90801

Summary Report

REVIEW OF CHEMICAL AND BIOLOGICAL DATA ON SEDIMENTS FOR THE CHANNEL DEEPENING PROJECT

Kinnetic Laboratories/ToxScan, Inc.
January, 2002

1.0 EXECUTIVE SUMMARY

Project Description. The U.S. Army Corps of Engineers in conjunction with the Los Angeles Harbor Department is proposing (USACE, 2000) to carry out deepening of the Main Channels and selected areas in the Port of Los Angeles inner harbor to a depth of 53 feet plus 2 feet over dredge (-55 feet MLLW).

Sites considered for disposal of the sediments to be dredged from the channels include the landfills of another project, the Southwest Basin development, particularly with respect to disposal of channel sediments unsuitable for ocean disposal. Other reuse or storage opportunities within the Port include the expansion of the Cabrillo Shallow Water Habitat area near the San Pedro breakwater in the outer Harbor, expansion of the Pier 300 landfill, and a submerged material storage site adjacent to the Pier 400 landfill. Offshore ocean disposal at the LA-3 disposal site is an option for clean dredge materials. However, no ocean disposal of dredged materials is currently proposed. All sediments will be disposed of at disposal sites within the Harbor as described above.

Purpose of This Report. The purpose of this data review is to collect and present sediment testing results for all of the sediments involved in this Channel Deepening Project. Data were developed for all of the dredge areas identified. These dredge material testing units are illustrated in Figure 1.

Sediment Testing Results. Sediments from the test units were sampled by vibracores and subjected to physical, chemical, and biological testing. Test protocols and evaluation criteria for dredge materials were used as specified by the U.S. Environmental Protection Agency and by the U.S. Army Corps of Engineers (USEPA/USACE 1991; 1998). Sediments were deemed unsuitable for ocean disposal if these evaluations concluded that the given sediment unit did not meet criteria for open water disposal.

Four dredge areas unsuitable for ocean disposal were identified. These areas are listed below and shown on Figure 1:

- Area FM-1 in the Main Channel
- Area FG-2B in the West Basin
- Southwest Slip Dike and Basin Area
- Area A-1, Lower End of proposed Linear Berth (Berth 100 South Extension)

Sediments from dredge units FG-2B and FM-1 were only moderately contaminated, with a few metals and organic contaminant concentrations exceeding NOAA (Long et al., 1995) ERL or ERM guidance values. These sediments are being dredged for the purpose of deepening navigational channels.

Sediments within area FG-2B in the West Basin were found to contain levels of mercury, nickel, DDT compounds, and PCBs in excess of ERL guidance values. However, significant toxicity was measured with a benthic amphipod test. Bioaccumulation test results showed lead, mercury, DDD, and PCBs bio-accumulated in test tissues to significant levels.

Sediments in area FM-1 showed metal levels to be elevated, more so than for either the coarse- or fine-grained materials tested from the inner reaches of the Main Channel. Organic compounds (DDTs and PCBs) were elevated to relatively high levels and were greater than other dredged materials in the Main Channel. Supplemental sampling of these materials demonstrated that the metals were found primarily in the formation (lower layer) materials while the organic compounds were distributed primarily in the depositional (top layer) materials. Significant toxicity was measured in two benthic toxicity tests, while slight bioaccumulation of copper, mercury, and lead occurred. USEPA concluded (USEPA, 1998a) that the surface depositional materials within the FM-1 area were not suitable for open water disposal but that the formation materials are suitable for open water disposal. Furthermore, USEPA (1998b) delineated two pockets of the surface material that are suitable for unconfined aquatic disposal. These suitable areas were in the northwestern corner and in the southeastern area of the FM-1 area. Recent sampling of the area just south of the Pilot Station (MEC, 2002) showed that these sediments were suitable for ocean disposal.

Sediments in the Southwest Slip were highly contaminated, most with pronounced petroleum odors, and all with very high concentrations of metals, petroleum hydrocarbons and PAHs, high DDT compounds, and high PCBs. Sediments in the small Area A-1 (Berth 100 South Extension) showed moderate contamination. These sediments in the Slip and along the proposed pier face need to be dredged for dike keys, and for minor reconfiguration of the bottom of the Slip where new fill is not to be placed at this time.

Sediments from these dredge units deemed unsuitable for ocean disposal will need to be placed within a fill area. Elutriate and suspended phase bioassay test results from all the dredge areas indicate that adverse water quality impacts would not be expected during open water disposal, or from decant water from a confined landfill.

EX-9

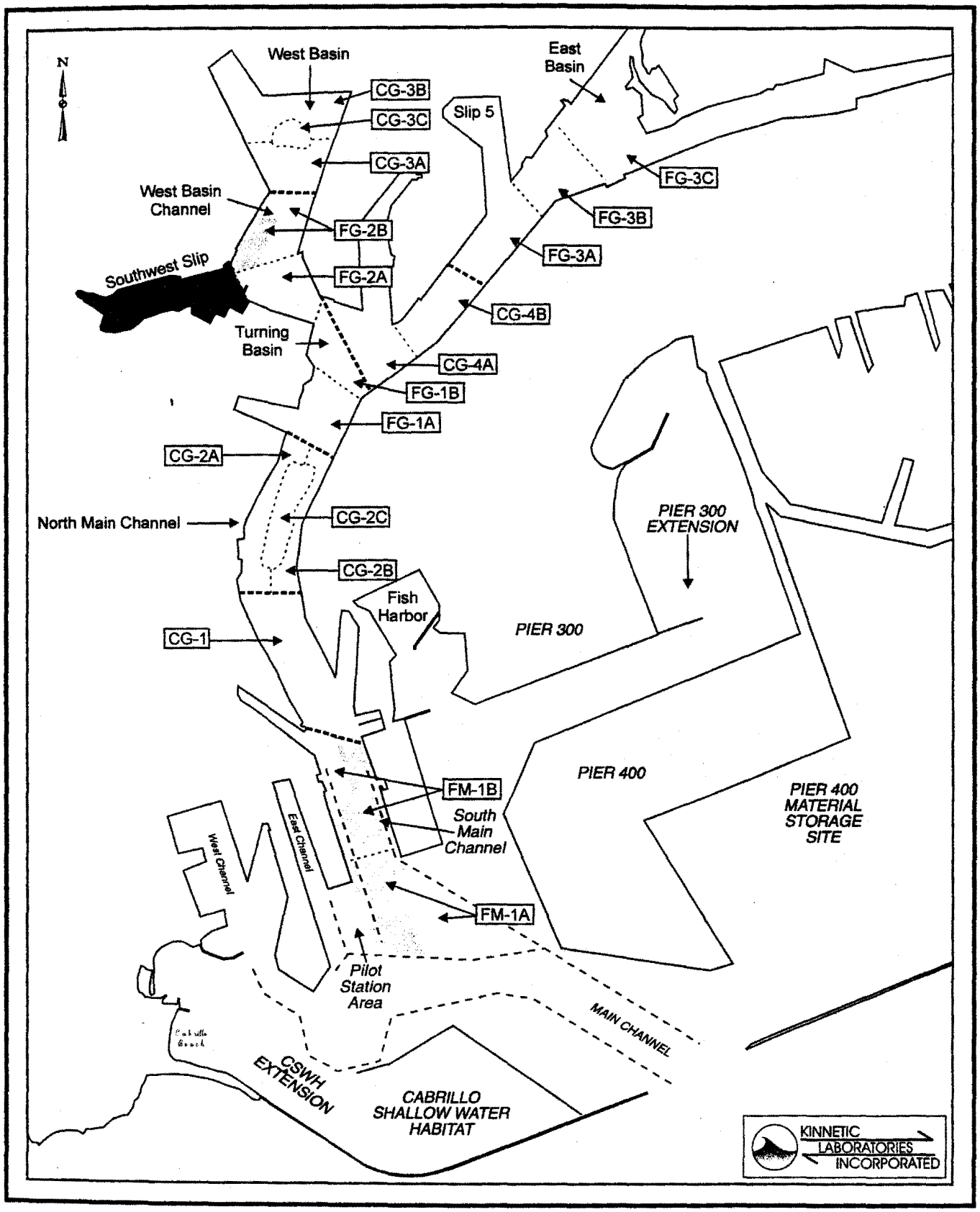


Figure 1. Dredge Material Test Units, Port of Los Angeles.

EX.9

describes the process where flocs of sediment particles continue to settle hindered by neighboring flocs and usually below a sharp interface dividing the relatively clear, supernatant water above and concentrated slurry below. Flocculent settling occurs above in the supernatant water. Compression settling occurs at the bottom were settled flocs gradually compress under their own weight. The PG-2B material is coarse grained and will quickly settle, even when dredged with a CSD and placed inside a CDF by a CSD. Additional long-tube settling tests are being conducted to verify the expected settling behavior of the dredge materials to be hydraulically dredged.

4.4 Dredging and Disposal of Materials Unsuitable for Open Water Ocean Disposal

Actual choice of equipment will depend on the equipment availability of the dredging contractors. An assessment analysis was performed on equipment utilization. The outcome of the analysis is the following tentative equipment utilization:

Dredging Methods

Cutter Suction Dredge (CSD)

The CSD will transport the material either by pumping it direct from the dredge through pipelines to the disposal site, or alternatively it will pump the material into barges, which then will dispose the materials at the disposal location. The transportation mode will most likely be by pipeline.

Clamshell Dredge

Typically the clamshell dredge will release the dredge material into a hopper barge. The barge then sails to the disposal site and bottom dumps the materials.

Disposal Methods

Transportation by pipeline

The pipeline is open-ended. Water with dissolved material, typically in a concentration of 10 to 20 percent solids when fine grained materials are dredged and is continuously discharged at the disposal area through the pipeline. Once the material is pumped, the larger soil particles will settle first, and fine sediments will take a longer time to settle.

Transportation by Barge

Once the barge has reached the disposal location, the material is bottom dumped at the location.

Environmental Considerations Associated with Dredge and Disposal Methods

In relation to the dredge and disposal of soils considered unsuitable for open water ocean disposal there are two main environmental considerations:

- Re-suspension of contaminated sediment in the water column
- Solubility of chemical contaminants from the soils in the water

During dredging and disposal operations, a certain amount of sediments are re-suspended into the water column, which may include contaminates. Therefore, water quality implications must be assessed in order evaluate potential water column impacts.

CSD

1. At the cutter
2. At the disposal site, discharge of water

Clamshell

3. At the clamshell during excavation
4. During lifting of the Clamshell
5. Overflow of barges
6. During bottom dumping

Each of these phenomena is related to the equipment, water conditions (temperature, currents), type and quantity of chemical contamination, and soil type.

For an initial comparison between different dredges and re-suspension of sediments, use can be made of Technical Note, Guide to Selecting a Dredge for Minimizing Re-suspension of Sediment, EEDP-09-1, USACE , December 1986. (Additional refinements are discussed in Technical Notes DOER-E5 through E9, and are contained in the ADDAMS system of numerical models).

Table from TN EEDP-09-1, Guide to Selecting a Dredge for Minimizing Re-suspension of Sediment :

Dredge Type	Down Current Distance – Suspended Solids Concentration, mg/l*		
	Within 100 feet	Within 200 feet	Within 400 feet
CSD	25-250	20-200	10-150
Clamshell – open bucket	150-900	100-600	75-350
Clamshell – closed bucket	50-300	40-210	25-100

*Suspended solids concentrations were adjusted for background concentrations

It can be observed that with normal operations the CSD results in lower re-suspension of sediments than use of a Clamshell dredge. For the Clamshell dredge with the closed bucket the re-suspension is comparable to the re-suspension of the CSD.

The CSD will not produce any re-suspension during transport through the dredge pipes, the materials are already suspended. During this transportation stage however the contaminants might dilute to the transport water.

The Clamshell operation is typically supported by a number of scows or split-hopper barges, which will transport the dredge material to the disposal site. When the material is placed inside these barges it is normal practice that the barges overflow, i.e. the water (inclusive of a percentage of re-suspended sediment) is allowed to flow over the weirs. This significantly increases the capacity of the barges. The other alternative is to prevent the barges from overflow. The re-suspended solids inside the water in the barge will then not be discharged in the channel at the dredge location, however these would be discharged in the disposal site.

Typically the overflow will occur mainly when the sediment being dredged is primarily sandy material. This allows for higher accumulation of coarse-grained material in the hoppers with the small fine grained fractions of silt and clay overflowing from the hopper bins into the surface water.

At the disposal location the materials are either pumped in (CSD), or dumped from the bottom of the scows or barges.

When the material is pumped inside the disposal location, the concentration of solids will be in the order of 10 to 20% when fine grained materials are dredged. This material would then undergo settlement in the disposal location. The time given for the suspended solids to settle dictates the suspended solids concentration in the water outflow out of the disposal location. The decant water contains both soluble contaminants, and those contaminants associated with the remaining suspended solids in the decant water.

Re-suspension of sediments also occurs when material is dumped from barges. Bucket dredges remove sediment at nearly in-situ density and place it in the barge for transportation to the disposal area. Each time material is dumped is a discrete discharge of material. The dredge material descends rapidly through the water column to the bottom, and only a small amount of the material remains suspended.

Water quality concerns with respect to this project are as follows:

- Will contaminants be released to the water column during the dredging and filling operations such as to violate water quality standards? (USEPA 2000; LARWQCB, 1994)

- Will increases in suspended sediments cause undesirable effects to biological resources, or violate local water quality standards?

Water quality determinations are made using bulk sediment chemistry and/or elutriate chemical analysis of the sediments to determine if ambient water quality standards can be met, or what dilution requirements would be required in a mixing zone to meet these ambient water quality requirements. These results are further verified by the use of suspended sediment bioassays.

Water quality objectives that need to be met within the Port of Los Angeles are defined in EPA Water Quality Standards for the State of California (USEPA, 2000), supplemented by guidance from the State of California Ocean Plan.

In practice, the elutriate test results and the suspended sediment bioassay results are first reviewed to indicate whether water quality standards with respect to contaminants can be met directly by the elutriate water (4 parts water /1 part sediment test), or if a dilution requirement might reasonably be met by the planned dredging and disposal operation so that these standards would be met during the planned operations.

Secondly, numerical modeling using the U.S. Army Engineer Waterways Experiment Station's Automated Dredging and Disposal Alternatives Management System (ADDAMS) is being used to estimate dilutions to be achieved during the given dredging and disposal operations. Predicted water quality concentrations of contaminants of interest will then be obtained, along with predicted suspended sediment concentrations. These predicted values will then be compared to water quality standards and objectives.

Dredge methods selected for handling the materials unsuitable for open water ocean disposal are the following:

- Clamshell Dredge – For Southwest Slip sediments (D212), Berth 100 South Extension (D213), formation materials in the FM-1 area (D201).

- Cutter Suction Dredge (CSD) – For FG-2B materials (D205) will be placed above elevation -12 ft MLLW in the Southwest Slip fill.

The dredge and disposal plan has been designed to maximize the sediment resources of the Port of Los Angeles by providing for the reuse of dredge materials where possible, and the temporary storage of excess dredge materials (suitable for open water ocean disposal) for future use. No dredge materials from this project are planned for ocean disposal.

Disposal sites are specified below:

- Disposal into an area surrounded by a dike that will eventually be above the water surface and which will be used for future Port facilities. A cap of clean sediments would be placed over the dredge materials considered unsuitable for open water ocean

disposal if these materials are placed within this site. Placement of this material and cap material could be by hydraulic placement or by bottom dump barge. Barge placement requires approximately 12 feet of water to accommodate the draft of the barge.

Three such landfill areas are planned for the Southwest Slip area. These are the West Fill Area at the back of the Southwest Slip, the East Fill Area just inside the Southwest Slip, and the small fill area at the South Berth 100 Extension (Area A-1).

The finer sediments would be placed in the Southwest Slip West Fill Area. These sediments would be from dredging required in the Southwest Slip area, the dike foundation trench for Berth 100 South Extension as well as from dredging the main channels in the FG-2B and FM-1 areas where materials exist which are considered unsuitable for open water ocean disposal.

Coarser grained materials, suitable for open water ocean disposal, would be placed in the East Fill Area for better structural performance, and coarse-grained material would be placed at Area A-1.

- Open water disposal into a submerged fill that has underwater dikes in place to confine the dredge materials. No materials, which are unsuitable for open water ocean disposal, are to be placed into a submerged site.

  Placement of dredge material and cap material could be by hydraulic placement or by bottom dump barge. Barge placement requires approximately 12 feet of water to accommodate the draft of the barge.

  A submerged aquatic disposal site will be built as an extension of the present Cabrillo Shallow Water Habitat in the outer Los Angeles Harbor. This site would be permanent and would provide for additional shallow water habitat. Fine materials and Malaga mudstone (suitable for open water ocean disposal) would be placed at this site.

  A second submerged site will be built adjacent to the present Pier 400. This site will be used for the temporary storage of excess dredge materials (suitable for open water ocean disposal).

The dredge material management plan has now been formulated, along with a contaminated material disposal/reuse plan. Initial evaluations were made of elutriate and suspended sediment bioassay data with respect to water quality effects for each sediment unit tested.

The specific evaluations of the available elutriate chemical results and of the suspended phase toxicity test results were discussed in detail in Section 4.4 above. In general, the conclusions are that from a water quality perspective of the dredging and disposal operations, adverse impacts would not be expected from disposal operations, or from decant water from a confined landfill assuming proper design and operation. This conclusion is based (Kinnetic Laboratories/ToxScan, 1997;2002a) on the fact that the elutriate extracts and/or suspended phase toxicity tests showed that little to no dilutions would be required to meet ambient water

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quality standards. This should be true for both the sediments suitable for open water ocean disposal to be dredged, and for the sediments unsuitable for open water ocean disposal to be dredged from both the channel deepening areas, as well as the sediments from the Southwest Slip area. For the channel sediments, it would be expected that either clam shell or hydraulic dredging could be used to dredge, transport, and dispose of this material in the planned areas since no dilutions would be required to meet water quality standards.

Modeling associated with design of the disposal facilities will confirm this preliminary evaluation. The monitoring program defined in section 5.2 below would confirm operations compliance and identify if any operational restraints would be needed to control turbidity. In addition to confirmation of expected dilutions, modeling will generate additional information on turbidity/suspended solids concentrations for use in managing the dredging and disposal operations so as to be compliant with expected permit conditions. For the sediments unsuitable for open water ocean disposal that must be dredged at the Southwest Slip sites, a clamshell dredge will be used because of the small volumes in very limited areas that need to be moved. These sediments will be placed directly into the West Landfill area at the Southwest fill area.

Using Laboratory test results, the site geometry at time of construction and properties of the proposed barges or pump capacity, modeling can be undertaken on the plume dispersion and initial deposition from the dump scows and or pipelines. This modeling can be undertaken using the ADDAMS program as developed by US Army Corps of Engineers, Waterways Experiment Station, module STFATE. With this model predictions can be made on the water column quality at discharge and also the contamination concentrations at the edges of the disposal site. The outcome of the analysis can be verified against permit requirements and can subsequently be used to decide if dumping requires specific additional mitigation such as silt screens and if pumping would require the site to be enclosed and if discharge restrictions are to be applied to the placement operations.

A next step is to model elutriate water quality, which comes as discharge from the placement of dredge material placed by pipeline. For this modeling use can be made of module EFQUAL of the ADDAMS program as developed by US Army Corps of Engineers, Waterways Experiment Station. This analysis would relate to the FG-2B material (D205), which will be dredged by CSD and then pumped to the CDF site. The elutriate water quality shall meet the permit requirements and the outcome of the modeling might be that there are no restrictions when placing the dredge material or that there are restrictions to be applied on discharge of elutriate, i.e. for instance on pump capacity when placing the material.

The appropriate tests to be used as input for the above analysis are the long tube column settle test and the elutriate tests. Presently the long tube column settle test is being undertaken on FG-2B material, as it is foreseen that this material will be placed by pumping it inside the CDF.

The results of the modeling are expected to be available mid February 2002. The results will be evaluated and construction requirements will be incorporated in the design of the disposal sites. As noted above, it is presently not expected that the outcome of such analysis would be that

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additional measures are required, however in case the analysis would indicate such requirements then these would be incorporated in the specifications and or design. The test data will be made available to the Contractor in order for him to verify, prior to construction, if he requires any additional measures and / or if he should envisage production restrictions during discharge operations.

Suspended solids concentrations are verified against the environmental permit to be issued. An abstract of the California Regional Water Quality Control Board, Discharge Requirement, is enclosed herewith.

California Regional Water Quality Control Board: Discharge requirements (abstract):

1. *The removal and placement of dredged / excavated material shall be managed such that the concentrations of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial use*

2. *Enclosed bay and estuarine communities and populations, including vertebrate, invertebrate and plant species, shall not be degraded as a result of the discharge of waste*

3. *The natural taste and odor of fish, shellfish, or other enclosed bay and estuarine resources used for human consumption shall not be impaired as a result of the discharge of waste.*

4. *Toxic pollutants shall not be discharged at levels that will bioaccumulte in aquatic resources to levels which are harmful to human health*

5. *There shall be no acute toxicity or chronic toxicity in ambient waters as a result of the discharge of waste*

6. *Dredging, excavation or disposal of dredge spoils shall not cause any of the following conditions in the receiving waters:*

   a) *The formation of sludge banks or deposits of waste origin that would adversely affect the composition of the bottom fauna and flora, interfere with the fish propagation or deleteriously affect their habitat, or adversely change the physical or chemical nature of the bottom*

   b) *Turbidity that would cause substantial visible contrast with the natural appearance of the water outside the immediate area of operation. This is interpreted as increase in turbidity that exceed 20% of the background levels at control sites.*

   c) *Discoloration outside the immediate area of operation*

EX. 10

d) Visible material, including oil and grease, either floating on or suspended in the water or deposited on beaches, shores, or channel structures outside the immediate area of operation

e) Objectionable odors emanating from the water surface

f) Depression or dissolved oxygen concentrations below 5.0 mg/l at any time outside the immediate area of operation

g) Any condition of pollution or nuisance

Typically turbidity measurements are taken 30 meters (100 feet) up and down current and 100 meters (300 feet) down current. These turbidity measurements are then compared to a control site. The requirements as provided above allow a 20% increase of the background levels at the disposal site.

In order to dispose of sediments, which are considered unsuitable for open water ocean disposal, in the port in a manner that meets regulatory requirements as well as POLA's best practice the following dredge and disposal procedure has been developed. It is expected that the procedures will meet the above requirements, which will be verified during construction:

1. Sediments unsuitable for open water ocean disposal from the Southwest Slip and Berth 100 South Extension will be removed using a Clamshell dredge.
2. Sediments unsuitable for open water ocean disposal from the channel areas FM-1 will be removed by a Clamshell dredge.
3. Sediments unsuitable for open water ocean disposal from FG-2B will be removed by a Cutter Suction Dredge.
4. The sediments unsuitable for open water ocean disposal from Southwest Slip, Berth 100 South Extension and FM-1 will be placed in Split Hopper Barges and bottom dumped into the disposal site. The FG-2B materials will be transported by pipeline and disposed in the disposal site.
5. At the dredge site overflow from the barges will be controlled and overflow discharge shall remain within the limits specified above.
6. During transportation of the material unsuitable for open water ocean disposal with the Split Hopper Barges no overflow is allowed.
7. At the disposal location the material unsuitable for open water ocean disposal will be placed by means of bottom dumping from the Barges or by hydraulic placement as appropriate.
8. The material unsuitable for open water ocean disposal will be confined during the dumping / placement process because the materials will be dumped inside the tubs, or

when the level becomes above the level of the tubs by means of underwater dikes or by dikes above the water surface. These dikes will retain and prevent the material from flowing out of the designated area.

9. The measurements as defined in the permit will be undertaken and the dredge and disposal process will remain within the permit limits.

The proposed methodology is in line with previous studies undertaken by the Port of Los Angeles and US Army Corps of Engineers.

4.5 Material Unsuitable for Open Water Ocean Disposal Sites – Alternatives Evaluated

A number of locations have been considered in this study for disposal of the material unsuitable for open water ocean disposal:

- Cabrillo Shallow Water Habitat Expansion
- Pier 400 submerged material storage site
- Southwest Slip East Fill
- Anchorage Road
- Pier 300 Expansion
- Southwest Slip West Fill

The following sites have been identified in the Feasibility Study:

- Southwest Slip East Fill
- Southwest Slip West Fill
- Pier 300 Expansion
- Cabrillo Shallow Water Habitat Expansion

Cabrillo Shallow Water Habitat Expansion (CSWH):

The CSWH has been identified for the disposal of dredge material, which is suitable for open water ocean disposal. This site will be used for disposal of non-structural dredge materials (fine-grained) for which a large capacity is required. Utilization of the CSWH for material unsuitable for open water ocean disposal will require placement of a cap to confine the material. A cap thickness of 5 feet is envisaged, which is 3 feet more than presently used in the design for a disposal location without material considered unsuitable for open water ocean disposal. This increased cap thickness substantially reduces the storage capacity for this material in the CSWH, due to the already limited water depth. Using the CSWH as a Confined Aquatic Disposal Site (CAD site) is not preferred by the Contaminated Sediment Task Force Interim Advisory Committee and therefore the CSWH was not considered further for storage of materials unsuitable for open water ocean disposal.

11. The FG-2B material will be dredged by a Cutter Suction Dredge (CSD) and pumped directly inside the CDF, up to an elevation of maximum +5 feet.
12. The CSD will then place a coarse grained sand layer from elevation +5 feet to +15 feet, the sand will become available from the Channel Deepening Project and is considered suitable for open water ocean disposal. In addition the surcharge material will be placed.
13. After installation of the surcharge material the Contractor will install wick drains, and the surcharge will remain in place until consolidation is complete.

5.2 Dredging and Disposal Operations – Water Quality Monitoring

The following sampling protocol shall be undertaken during the dredging and/or fill project. Sampling for the receiving water monitoring shall commence at least one week prior to the start of the dredging and fill operations and continue at least one week following the completion of all such operations. Sampling shall be conducted a minimum of once a week during dredging operations. Sampling shall be conducted down current of the dredge sites or of the fill sites at least one hour after the start of dredging operations. For the case of a confined fill area for disposal, sampling stations shall be referenced to the overflow weir of the confined fill site (i.e. the discharge point to the harbor receiving waters). All receiving water monitoring data shall be obtained via grab samples or remote electronic detection equipment. Receiving water samples shall be taken at the following stations:

Station	*Description*
A	30 meters (100 feet) up current of the dredging/disposal operations, safety permitting.
B	30 meters (100 feet) down current of the dredging/disposal operations, safety permitting.
C	100 meters (300 feet) down current of the dredging/disposal operations.
D	Control site (area not affected by dredging/disposal operations).

The following shall constitute the receiving water monitoring program:

Water Column Monitoring

Parameters	*Units*	*Station*	*Frequency*
Dissolved oxygen[1]	mg/l	A thru D	Weekly[2]
Light Transmittance[1]	% Transmittance	A thru D	Weekly
PH[1]	pH units	A thru D	Weekly
Suspended Solids[3]	mg/l	A thru D	Twice Monthly

[1] Measurements shall be taken throughout the water column (at a minimum, at 2-meter (6 feet) increments).
[2] During the first two weeks of dredging, stations shall be sampled four times per week.
[3] Mid-depth shall be sampled.

Water column light transmittance values from Stations C and D shall be averaged for the near surface (1 meter (3 feet) below the surface), mid-water and bottom (1 meter (3 feet) above the bottom). If the difference in % light transmittance is 30% or greater (based on a comparison of the averaged values at the two stations), water samples shall be collected at mid-depth (or the depth at which the maximum turbidity occurs) and analyzed for trace metals, DDTs, PCBs, and PAHs. At a minimum, one set of water samples shall be collected each month during dredging of materials unsuitable for ocean disposal and analyzed for chemical constituents. Analyte reporting limits shall be appropriately low to allow comparisons with water quality standards applicable to the harbor receiving waters.

Color photographs shall be taken at the time of sampling to record the presence and extent of visible effects of dredging operations. These photographs shall be submitted with the receiving water monitoring reports.

The discharger shall provide Regional Board staff with a receiving water monitoring field schedule at least one week prior to initiating the program. Regional Board staff shall be notified of any changes in the field schedule at least 48 hours in advance.

Observations

The following receiving water observations shall be made and logged daily during dredging or excavating operations:

a. Date and time;
b. Direction and estimated speed of currents;
c. General weather conditions and wind velocity;
d. Tide stage;
e. Appearance of trash, floatable material, grease, oil or oily slick, or other objectionable materials;
f. Discoloration and/or turbidity;

g.. Odors;
g. Depth of dredge operations during previous day;
h. Amount of material dredged the previous day;
i. Cumulative total amount of material dredged to date.

General Provisions

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" promulgated by the United States Environmental Protection Agency.

All chemical analyses shall be conducted at a laboratory certified for such analysis by the State Department of Health Services, or approved by the Executive Officer.

The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.

A grab sample is defined as an individual sample collected in fewer than 15 minutes.

All samples shall be representative of the waste discharge under normal operating conditions.

Reporting

Monitoring reports shall be submitted within 10 days following each weekly sampling period. In reporting, the discharger shall arrange the monitoring in tabular form so that dates, time, parameter, test data, and observations are readily discernible. The data shall be summarized to demonstrate compliance with the waste discharge requirements. A final report, summarizing the results of the weekly monitoring and reporting the total volume discharged, shall be submitted within one month of completion of the project.

Each monitoring report must affirm in writing that:

> All analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer and in accordance with current EPA guidelines or as specified in the Monitoring Program.

For any analysis performed for which no procedure is specified in the EPA guidelines or in the Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

General Provisions for Reporting

For every item where the requirements are not met, the discharger shall submit a statement of actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

February 20, 2002

MEMORANDUM

SUBJECT: Port of Los Angeles Main Channel Deepening Project, Delineation of Dredged Materials for Unconfined Aquatic Disposal
FROM: Steven John, U.S. Environmental Protection Agency
TO: Larry Smith, U.S. Army Corps of Engineers

The U.S. Environmental Protection Agency has reviewed a series of environmental documents for the proposed deepening of the Port of Los Angeles Main Channel as part of the Port's original -50 feet MLLW project (see EPA's May 1, 1998 and May 14, 1998 memoranda to the Corps) to the current Corps of Engineers -53 feet MLLW project. As the project has evolved to include the dredging and disposal of additional materials, in addition to substantial modification to the disposal locations, the Corps of Engineers (January 25, 2002 memo) requested a single suitability concurrence by EPA for the current project. The Corps of Engineers suitability determination for all of the proposed dredged materials is provided in the attached table.

EPA's review of the proposed action was conducted in accordance with the Federal Guidelines (40 CFR 230) published pursuant to Section 404 of the Clean Water Act and Section 103 of the Marine Protection, Research and Sanctuaries Act.

EPA confirms our concurrence on the suitability of the materials we had concurred on previously in May 1998 (see attached Corps suitability table for specific designated dredged material test units). Additionally, EPA reaffirms our position that the dredged materials noted in the May 1998 memoranda as being unsuitable are not suitable for unconfined aquatic disposal (see attached Corps suitability table for specific designated dredged material test units).

Materials designated as CG-1, CG-2, CG-3 and CG-4 were originally proposed by the Port of Los Angeles for inclusion in the Pier 400 landfill; EPA concurred on this disposal option for these materials in the May 1, 1998 memorandum. Subsequent project modifications has resulted in a change in the disposal locations for these materials to include unconfined aquatic disposal. EPA concurs on the Corps determination that these materials are consistent with the requirements of the Inland Testing Manual (Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual) and are suitable for unconfined aquatic disposal in waters of the United States.

EXHIBIT NO. 12
APPLICATION NO.
CD-006-02

For proposed dredged materials resulting in the change in project depth to -53 feet MLLW, EPA concurs on the Corps determination that the materials associated with test unit FM-1A (formation and depositional) are suitable for unconfined aquatic disposal. EPA concurs on the determination by the Corps that the materials in test units FG-1 and FG-2A to -53 feet MLLW are suitable for unconfined aquatic disposal. EPA concurs on the Corps determination that the materials associated with the -53 feet MLLW project from test units FG2-7, FG2-9 and FG2-10 are suitable for unconfined aquatic disposal. EPA also concurs on the Corps determination that the dredged materials associated with the -53 feet MLLW project at test units FG2-6 and FG2-8 are suitable to be included in the Southwest Slip Landfill; while these materials are suitable for unconfined aquatic disposal, dredging the -53 feet MLLW materials separate from the overlying unsuitable materials is not feasible, therefore confined disposal of the -53 feet MLLW materials at the Southwest Slip Landfill is proposed. See attached Corps suitability determination table.

Finally, EPA concurs with the Corps determination that the proposed dredged materials from Berth 100 and the Southwest Slip (Berth 100 Wharf Construction and Shoreline Improvement – Sediment Characterization Study, POLA, MEC 2001; and Results of Physical, Chemical, and Bioassay Testing of Sediments Collected for the Port of Los Angeles Modified Channel Deepening Program, MEC 2001) are unsuitable for unconfined aquatic disposal. See attached Corps suitability determination table.

EPA appreciates the opportunity to confirm our suitability concurrences for the dredged materials evaluated in the prior Port of Los Angeles Main Channel Deepening Project and to review and provide our concurrence on the Corps determinations for the modified, -53 feet MLLW, Main Channel project. If you have any questions about EPA's concurrences, please contact me at 213.452.3806 or by e-mail at john.steven@epa.gov.

Attachment (1)

EX. 12

Dredged Material Test Unit	Material Type	Dredge Depth	Suitability Determination	USEPA Memo	Data Report
FM-1A	Formation	-50' MLLW	Suitable for unconfined aquatic disposal	5/1&14/1998	KLI/Toxscan 1997
	Depositional material	-50' MLLW	Eastern portion only suitable	05/14/1998	KLI/Toxscan 1997
	Formation	-53'MLLW	Suitable for unconfined aquatic disposal		MEC 2001b
Pilot Station	Formation	-53'MLLW	Suitable for unconfined aquatic disposal		MEC 2001b
	Depositional material	-53'MLLW	Suitable for unconfined aquatic disposal		MEC 2001b
FM-1B	Formation	-50' MLLW	Suitable for unconfined aquatic disposal	5/1&14/1998	KLI/Toxscan 1997
	Depositional material	-53'MLLW	Western portion only suitable	05/14/1998	KLI/Toxscan 1997
CG-1	Coarse grain	-65'MLLW	Suitable for unconfined aquatic disposal*	05/01/1998	KLI/Toxscan 1996
CG-2	Coarse grain	-65'MLLW	Suitable for unconfined aquatic disposal*	05/01/1998	KLI/Toxscan 1997
FG-1	Fine Grain	-50' MLLW	Suitable for unconfined aquatic disposal	05/01/1998	KLI/Toxscan 1997
	Fine Grain	-53' MLLW	Suitable for unconfined aquatic disposal		MEC 2001b
FG-2A	Fine Grain	-50' MLLW	Suitable for unconfined aquatic disposal	05/01/1998	KLI/Toxscan 1997
	Fine Grain	-53' MLLW	Suitable for unconfined aquatic disposal		MEC 2001b
FG-2B					
FG2-6 & FG2-8	Fine grain	-50' MLLW	Unsuitable for unconfined aquatic disposal	05/01/1998	KLI/Toxscan 1997
FG2-7, FG2-9, & FG2-10	Fine grain	-50' MLLW	Suitable for unconfined aquatic disposal	05/01/1998	KLI/Toxscan 1997
FG2-6 & FG2-8	Fine grain	-53' MLLW	Suitable for unconfined aquatic disposal**		MEC 2001b
FG2-7, FG2-9, & FG2-10	Fine grain	-53' MLLW	Suitable for unconfined aquatic disposal		MEC 2001b
CG-3	Coarse grain	-65'MLLW	Suitable for unconfined aquatic disposal*	05/01/1998	KLI/Toxscan 1997
CG-4	Coarse grain	-65'MLLW	Suitable for unconfined aquatic disposal*	05/01/1998	KLI/Toxscan 1997
FG-3	Fine grain	-50' MLLW	Suitable for unconfined aquatic disposal	05/01/1998	KLI/Toxscan 1997
B. 100	Fine grain	-53' MLLW	Unsuitable for unconfined aquatic disposal		MEC 2001a
Southwest Slip	Fine grain	varying	Unsuitable for unconfined aquatic disposal		KLI/Toxscan 2002

* Original determination was "suitable for use in the Pier 400 landfill." We believe, based on sediment chemistry, that "Suitable for unconfined aquatic disposal." is appropriate

** While the tests show this material to be suitable for unconfined aquatic disposal, dredgability issues will require this material be placed in the Southwest Slip landfill.

REFERENCES

KLI/Toxscan 1996 Chemical Analysis and Toxicity Evaluation of Sediments, Pier 400 Deep Navigation Project Borrow Project

KLI/Toxscan 1997 Environmental Evaluation of Sediments for the Channel Deepening Program, POLA

KLI/Toxscan 2002 Dredged Material Sampling and Analysis Southwest Basin Development Project POLA

MEC 2001a Berth 100 Wharf Construction and Shoreline Improvement-Sediment Characterization Study, POLA

MEC 2001b Results of Physical, Chemical, and Bioassay Testing of Sediments Collected for the Port of Los Angeles Modified Channel Deepening Program

EX-12

Los Angeles Region
CONTAMINATED
SEDIMENTS
TASK FORCE

Date: April 9, 2002

To: Contaminated Sediments Task Force and Interested Parties

From: The Contaminated Sediments Task Force Advisory Committee

Re: Port of Los Angeles Channel Deepening Project – Final Contaminated Sediments Task Force Advisory Committee Memo

The Advisory Committee (AC, see attached membership list) of the Contaminated Sediments Task Force (CSTF) recently completed a series of four meetings with representatives of the U.S. Army Corps of Engineers, Los Angeles District (LAD) and the Port of Los Angeles (POLA). The purpose of the meetings was to solicit the assistance of the AC in preparing a Contaminated Sediments Management Plan (CSMP) for the Port of Los Angeles Channel Deepening Project. This memo is intended to serve as a record of comments provided by the AC during the meetings and to document project modifications made in response to comments of the AC. It also is a record of key points of agreement regarding dredging and disposal of contaminated sediments, and any areas of continuing disagreement.

The primary purpose of the proposed project is to deepen the inner harbor of the Port of Los Angeles to improve deep-draft navigation safety, to maximize the efficiency of the Port of Los Angeles to accommodate deep-draft commercial vessels and increasing economies of scale, and to maximize the beneficial use of dredged material. The proposed project consists of dredging the Main Channel and turning basins to a project depth of –53' MLLW to improve navigation and disposing of dredged materials in areas designated by the Port of Los Angeles.

The AC is the body set up by the CSTF to review projects that include dredging of contaminated sediments until the CSTF can complete its work and finalize a regional strategy for dredging and disposing of contaminated sediments. The LAD and POLA approached the AC in November 2001 to begin the consultation process for the Channel Deepening Project. The project at that time was referred to as the Recommended Plan by the U.S. Army Corps of Engineers (the Corps). This initial design included dredging of approximately 6.6 million cubic yards (mcy) of channel sediments with disposal in the following sites: 1) 1.5 mcy in the Pier 300 Expansion Site; 2) 1.7 mcy in the Southwest Slip Fill Site; 3) 1.0 mcy in the Cabrillo Shallow Water Habitat (CSWH) Expansion Site; and 4) 2.4 mcy at the LA-3 Ocean Disposal Site.

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CD-006-02

The series of meetings focused on project modifications. The discussion below will present modifications for each disposal site. Each disposal site was discussed at varying lengths at all meetings. The approach of presenting the results by disposal site is for clarity only and does not reflect any ordering of discussion by the AC. The majority of discussions dealt with the Southwest Slip Fill Site, so that site shall be discussed first.

Southwest Slip Fill Site. The Recommended Plan and the first design submitted to the AC were based on a surface area limitation of 35 acres of fill. The 35 acres was based on mitigation credits available to the POLA. The Southwest Slip Fill Site was divided into two pieces: an East Fill and a West Fill. The basis for this decision was the result of studies conducted for a container terminal in this area and navigation studies conducted to ensure that the project would not impact the nearby liquid bulk terminal at Berths 118-119. The East Fill was approximately 20 acres in size (including 2 acres for the Berth 100 site) and the West Fill was approximately 15 acres in size.

Prior to the first AC meeting, the POLA and the LAD determined to place all sediments unsuitable for ocean disposal into the Southwest Slip Fill Site. Design for this was constrained by many factors, including a maximum land fill size of 35 acres, constraints presented by the navigation study on which areas could safely be filled, the inability, due to its geometry, to use any of the East Fill as a disposal site for sediments unsuitable for ocean disposal, and site topography that included deeper areas constructed for shipyard use that were ideally suitable for disposal of sediments unsuitable for ocean disposal. The resulting design included a ten-acre Confined Aquatic Disposal (CAD) Site adjacent to the West Fill. This design avoided impacts to the nearby liquid bulk terminal, while providing sufficient volume to dispose of all identified sediments unsuitable for ocean disposal from the proposed project.

Members of the AC expressed concern about the CAD site. Additional studies were conducted by the POLA regarding alternative designs and the availability of mitigation credits. The design presented in the Contaminated Sediments Management Plan (CSMP) expanded the West Fill from 15 to 23 acres in place of the previously proposed CAD. This design met the requirements to contain all sediments unsuitable for ocean disposal, avoid navigational impacts to the liquid bulk terminal, and provided an alternative to placing a CAD site in the harbor.

The design alternative for the Southwest Slip Fill Site as presented in the CSMP was determined to be the most desirable option by members of the AC.

Pier 400 Submerged Storage Site. A disposal or storage site adjacent to Pier 400 was first proposed in the Feasibility Study SEIS/SEIR, September 2000, conducted by the

Corps for the project. The POLA proposes to use the site as a temporary submerged storage site for sediments. Sediments placed within the site could be dredged as needed for future fill within the POLA. Use of this site as a storage area was proposed for sediments that would otherwise be disposed of at the LA-3 ocean disposal site. Three design alternatives were presented to the AC. The design selected represents the best compromise between storage volume and avoidance of the existing Terminal Island Treatment Plant (TITP) outfall. The Pier 400 site, as assessed in the Feasibility Study, was 160 acres in size. The Pier 400 Submerged Storage Site will be approximately 120 acres in size. The site would be undisturbed for the first three years after construction to allow recolonization, after which the material may be reused. The timeframe for reuse was unspecified and is dependent on unknown future uses.

The design alternative for the Pier 400 Submerged Storage Site as presented in the Supplemental Environmental Assessment (SEA) was acceptable to the AC members representing the U.S. Environmental Protection Agency (US EPA), the Los Angeles Regional Water Quality Control Board (LARWQCB), the California Department of Fish and Game (CDFG) and the California Coastal Commission (CCC). The AC member representing Heal the Bay did not support this design alternative.

All members of the AC except Heal the Bay agreed that the storage of dredged materials for reuse is preferable to permanent disposal of the materials in an ocean disposal site. It is Heal the Bay's position that the impacts of creating such a site would not constitute beneficial reuse, but would result in the loss of habitat due to periodic disturbance and damage after the initial three year period. Because the POLA is not required to mitigate these impacts under the Safe Harbors Agreement, it is Heal the Bay's position that the storage site would result in the loss of 120 acres of outer harbor habitat. Heal the Bay would prefer ocean disposal of clean sediment to the construction of the Pier 400 Submerged Storage Site.

Malaga mudstone. Formation materials in the channel entrance are classified as Malaga mudstone. These materials were initially proposed to be placed offshore at the LA-3 ocean disposal site in the September 2000 EA. The AC voiced dissenting opinions on this issue. Members from the US EPA, and the LARWQCB disagreed with this option, preferring to see the surplus material kept within the port for future reuse. A proposal to place the Malaga mudstone within the Cabrillo Shallow Water Habitat Expansion (CSWHE) was made. However, as design proceeded it quickly became clear that there would not be sufficient volume within the CSWHE to contain all of the Malaga mudstone that required dredging and disposal as part of the proposed project. To address this, the area directly south of Pier 400 was proposed as a temporary sediment storage site for sediments that otherwise would be disposed of at the LA-3 ocean disposal site. The

design of the Pier 400 Submerged Storage Site places the Malaga mudstone in the bottom of the site, to be overlain by fine-grained sediments removed from the Main Channel. The Malaga mudstone is low in organic carbon and would serve as a poor substrate for recolonization by benthic organisms. The Main Channel sediments are much higher in organic carbon and would be more easily and quickly recolonized following completion of construction.

The location of Malaga mudstone in a temporary submerged storage site as described above was acceptable to the AC members representing the U.S. Environmental Protection Agency (US EPA), the Los Angeles Regional Water Quality Control Board (LARWQCB), the California Department of Fish and Game (CDFG) and the California Coastal Commission (CCC). The AC member representing Heal the Bay did not support this option.

Although Malaga mudstone materials were determined to be suitable for ocean disposal by the Corps, with the U.S. EPA concurring, and have previously been dredged and disposed of within the Outer Harbor and at the LA-2 ocean disposal site, they contain naturally occurring elevated levels of metals. It is the position of most of the members of the AC that Malaga mudstone is suitable for unconfined ocean disposal and that the naturally occurring metals do not represent a threat to the environment. Further, covering the Malaga mudstone with Main Channel sediments will provide additional seclusion from the benthic environment. It is Heal the Bay's position that the Malaga mudstone should undergo bioassay testing prior to any dredging or disposal of these sediments.

Water Quality Monitoring. The CSMP contained a proposed water quality monitoring plan. One recommendation proposed by the AC was made to the monitoring plan. The water-sampling requirement will be changed from a one-time event to once per month during dredging of sediments unsuitable for ocean disposal. Dredging of sediments suitable for ocean disposal would be monitored by the weekly monitoring requirements, but chemical analyses of water samples would not be required. It is estimated that it will take approximately three months to dredge and dispose of the sediments unsuitable for ocean disposal resulting in a total of three water-sampling events

All members of the AC except Heal the Bay found the plan acceptable with the proposed change. In comments addressed to the AC after the last meeting, they expressed the concern that the monitoring plan is not sufficiently defined and a contingency plan of BMPs that will be implemented in the event that monitoring indicates an exceedance of water quality standards has not been developed. Subsequently the POLA is addressing these concerns by providing a more specifically defined plan, including contingency BMPs.

WHEN AVAILABLE?

Los Angeles Region
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US EPA suitability determination. Due to the numerous modifications of the proposed project, The AC members exhibited some confusion regarding exactly which sediments had been determined to be suitable and unsuitable for ocean disposal. The US Corps of Engineers have made several suitability determinations since the inception of the original project, and the US EPA has made several suitability determination concurrences starting with an initial suitability determination concurrence in 1998. The LAD will be providing the US EPA with a final suitability determination and will request concurrence on the final suitability determination for the proposed project. This will result in a single suitability determination for the entire project and a final suitability determination concurrence, superceding the previous suitability determinations and concurrences. The members of the AC concurred with this course of action.

Contaminated Sediment Management Plan. Members of the AC were provided copies of the draft CSMP for review and comment. The revised CSMP was provided to them as part of the SEA. Except as noted in this memo, all members of the AC concur with the findings and proposed actions contained in the CSMP.

Advisory Committee
Membership List

I. Name	Agency
Steven John	U.S. Environmental Protection Agency
Michael Lyons	California Regional Water Quality Control Board, Los Angeles Region
Jessica Morton	California Coastal Commission
Mitzy Taggart	Heal the Bay
Bill Paznokas	California Department of Fish and Game

EX-13

Memorandum March 7, 2002
FOR: CESPL-ED-DC
FROM: Gary L. Howell, P.E., CEERD-HC-S

SUBJECT:

Cabrillo Beach Monitoring Plan

Executive Summary

The field monitoring plan is designed to provide an objective assessment of impacts from construction of the Cabrillo Shallow Water Habitat Expansion on circulation and water quality at inner Cabrillo Beach, a public park in Los Angeles, CA. The plan is a response to findings of the California Coastal Commission related to expansion of the Cabrillo Shallow Water Habitat in Los Angeles Harbor. In the Consistency Determination No. CD-50-00 [1] the Commission requests that the Corps submit a monitoring plan for post-construction monitoring of circulation and water quality. The plan here exceeds this requirement by also providing for a pre-construction data collection. The pre-construction data set will provide a baseline for an objective evaluation of any changed conditions after construction. The construction schedule could require up to 24 months.

Data will be collected to supplement the on-going hydrodynamic and water quality measurements by the Corps and local partners. Circulation data include water levels, currents, dispersion, and dilution measurements. Water quality data include dissolved oxygen, temperature, turbidity, and transparency. The data will be supported by environmental and morphologic measurements including atmospheric pressure, temperature, wind velocity, and wading-depth beach profiles. Analysis of the data and assessment of changed conditions will be reported.

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1 Objectives

1.1 Background

Cabrillo Beach is a recreational swimming area consisting of a small pocket beach on the inside corner of the San Pedro Breakwater. The beach is bounded on the south by the breakwater and the north by a shore perpendicular groin. The beach was originally man-made and captures littoral and aeolian drift of sediment through and over the breakwater. The shoreward face of the beach is bound by natural headlands. The beach is protected by the breakwater from ocean swell and wind waves. There is limited fetch and exposure to locally generated wind waves in the harbor. The sheltering of the beach has made it a popular swimming area for families with small children.

EX-14

Table 3.4-3. Mitigation Available for Channel Deepening Project

Mitigation Bank	*Approximate Credits Available*[1]	*Value in Deep Outer Harbor*[2]	*Value in Shallow Outer Harbor*[2,3]	*Value in Inner Harbor Slips*[2]
Bolsa Chica Bank	70	70	~47	140
Outer Harbor Bank	46	46	~31	92
Inner Harbor Bank	6	n.a.	n.a.	6
Total		116	78	238

Notes:

1. Final values to be confirmed from as-built drawings for Pier 400 and the Cabrillo Shallow Water Habitat.
2. Value of credits is 1/1 for Outer Harbor deep habitat, 1/1.5 for Outer Harbor shallow habitat, and 1/0.5 for inner harbor; n.a. = not applicable.
3. The Pier 300 fill may require expenditure of credits for degradation of the remaining water area.

SOUTHERN CALIFORNIA EELGRASS MITIGATION POLICY

(Adopted July 31, 1991)

Eelgrass (Zostera marina) vegetated areas function as important habitat for a variety of fish and other wildlife. In order to standardize and maintain a consistent policy regarding mitigating adverse impacts to eelgrass resources, the following policy has been developed by the Federal and State resource agencies (National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game). This policy should be cited as the Southern California Eelgrass Mitigation Policy (revision 8).

For clarity, the following definitions apply. "Project" refers to work performed on-site to accomplish the applicant's purpose. "Mitigation" refers to work performed to compensate for any adverse impacts caused by the "project". "Resource agencies" refers to National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

1. **Mitigation Need.** Eelgrass transplants shall be considered only after the normal provisions and policies regarding avoidance and minimization, as addressed in the Section 404 Mitigation Memorandum of Agreement between the Corps of Engineers and Environmental Protection Agency, have been pursued to the fullest extent possible prior to the development of any mitigation program.

2. **Mitigation Map.** The project applicant shall map thoroughly the area, distribution, density and relationship to depth contours of any eelgrass beds likely to be impacted by project construction. This includes areas immediately adjacent to the project site which have the potential to be indirectly or inadvertently impacted as well as areas having the proper depth and substrate requirements for eelgrass but which currently lack vegetation.

Protocol for mapping shall consist of the following format:

1) Coordinates

Horizontal datum - Universal Transverse Mercator (UTM), NAD 83, Zone 11

Vertical datum - Mean Lower Low Water (MLLW), depth in feet.

2) Units

Transects and grids in meters.

Area measurements in square meters/hectares.

All mapping efforts must be completed during the active growth phase for the vegetation (typically March through October) and shall be valid for a period of 120 days with the exception of surveys completed in August - October.

A survey completed in August - October shall be valid until the resumption of active growth (i.e., March 1). After project construction, a post-project survey shall be completed within 30 days. The actual area of impact shall be determined from this survey.

3. **Mitigation Site.** The location of eelgrass transplant mitigation shall be in areas similar to those where the initial impact occurs. Factors such as, distance from project, depth, sediment type, distance from ocean connection, water quality, and currents are among those that should be considered in evaluating potential sites.

4. **Mitigation Size.** In the case of transplant mitigation activities that occur concurrent to the project that results in damage to the existing eelgrass resource, a ratio of 1.2 to 1 shall apply. That is, for each square meter adversely impacted, 1.2 square meters of new suitable habitat, vegetated with eelgrass, must be created. The rationale for this ratio is based on, 1) the time (i.e., generally three years) necessary for a mitigation site to reach full fishery utilization and 2) the need to offset any productivity losses during this recovery period within five years. An exception to the 1.2 to 1 requirement shall be allowed when the impact is temporary and the total area of impact is less than 100 square meters. Mitigation on a one-for-one basis shall be acceptable for projects that meet these requirements (see section 11 for projects impacting less than 10 square meters).

Transplant mitigation completed three years in advance of the impact (i.e., mitigation banks) will not incur the additional 20% requirement and, therefore, can be constructed on a one-for-one basis. However, all other annual monitoring requirements (see sections 8-9) remain the same irrespective of when the transplant is completed.

Project applicants should consider increasing the size of the required mitigation area by 20-30% to provide greater assurance that the success criteria, as specified in Section 9, will be met. In addition, alternative contingent mitigation must be specified, and included in any required permits, to address situation where performance standards (see section 9) are not met.

5. **Mitigation Technique.** Techniques for the construction and planting of the eelgrass mitigation site shall be consistent with the best available technology at the time of the project. Donor material shall be taken from the area of direct impact whenever possible, but also should include a minimum of two additional distinct sites to better ensure genetic diversity of the donor plants. No more than 10% of an existing bed shall be harvested for transplanting purposes. Plants harvested shall be taken in a manner to thin an existing bed without leaving any noticeable bare areas. Written permission to harvest donor plants must be obtained from the California Department of Fish and Game.

Plantings should consist of bare-root bundles consisting of 8-12 individual turions. Specific spacing of transplant units shall be at the discretion of the project applicant. However, it is understood that whatever techniques are employed, they must comply with the stated requirements and criteria.

6. **Mitigation Timing.** For off-site mitigation, transplanting should be started prior to or concurrent with the initiation of in-water construction resulting in the impact to the eelgrass bed. Any off-site mitigation project which fails to initiate transplanting work within 135 days following the initiation of the in-water construction resulting in impact to the eelgrass bed will be subject to additional mitigation requirements as specified in section 7. For on-site mitigation, transplanting should be postponed when construction work is likely to impact the mitigation. However, transplanting of on-site mitigation should be started no later than 135 days after initiation of in-water construction activities. A construction schedule which includes specific starting and ending dates for all work including mitigation activities shall be provided to the resource agencies for approval at least 30 days prior to initiating in-water construction.

EX. 16

7. **Mitigation Delay.** If, according to the construction schedule or because of any delays, mitigation cannot be started within 135 days of initiating in-water construction, the eelgrass replacement mitigation obligation shall increase at a rate of seven percent for each month of delay. This increase is necessary to ensure that all productivity losses incurred during this period are sufficiently offset within five years.

8. **Mitigation Monitoring.** Monitoring the success of eelgrass mitigation shall be required for a period of five years for most projects. Monitoring activities shall determine the area of eelgrass and density of plants at the transplant site and shall be conducted at 3, 6, 12, 24, 36, 48, and 60 months after completion of the transplant. All monitoring work must be conducted during the active vegetative growth period and shall avoid the winter months of November through February. Sufficient flexibility in the scheduling of the 3 and 6 month surveys shall be allowed in order to ensure the work is completed during this active growth period. Additional monitoring beyond the 60 month period may be required in those instances where stability of the proposed transplant site is questionable or where other factors may influence the long-term success of transplant.

The monitoring of an adjacent or other acceptable control area (subject to the approval of the resource agencies) to account for any natural changes or fluctuations in bed width or density must be included as an element of the overall program.

A monitoring schedule that indicates when each of the required monitoring events will be completed shall be provided to the resource agencies prior to or concurrent with the initiation of the mitigation.

Monitoring reports shall be provided to the resource agencies within 30 days after the completion of each required monitoring period.

9. **Mitigation Success.** Criteria for determination of transplant success shall be based upon a comparison of vegetation coverage (area) and density (turions per square meter) between the project and mitigation sites. Extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density of shoots is defined by the number of turions per area present in representative samples within the control or transplant bed. Specific criteria are as follows:

a. a minimum of 70 percent area of eelgrass bed and 30 percent density after the first year.

b. a minimum of 85 percent area of eelgrass bed and 70 percent density after the second year.

c. a sustained 100 percent area of eelgrass bed and at least 85 percent density for the third, fourth and fifth years.

Should the required eelgrass transplant fail to meet the established criteria, then a Supplementary Transplant Area (STA) shall be constructed, if necessary, and planted. The size of this STA shall be determined by the following formula:

$$STA = MTA \times (|A_t + D_t| - |A_c + D_c|)$$

MTA = mitigation transplant area.

EX-16

A_t = transplant deficiency or excess in area of coverage criterion (%).

D_t = transplant deficiency in density criterion (%).

A_c = natural decline in area of control (%).

D_c = natural decline in density of control (%).

Four conditions apply:

1) For years 2-5, an excess of only up to 30% in area of coverage over the stated criterion with a density of at least 60% as compared to the project area may be used to offset any deficiencies in the density criterion.

2) Only excesses in area criterion equal to or less than the deficiencies in density shall be entered into the STA formula.

3) Densities which exceed any of the stated criteria shall not be used to offset any deficiencies in area of coverage.

4) Any required STA must be initiated within 120 days following the monitoring event that identifies a deficiency in meeting the success criteria. Any delays beyond 120 days in the implementation of the STA shall be subject to the penalties as described in Section 7.

10. **Mitigation Bank.** Any mitigation transplant success that, after five years, exceeds the mitigation requirements, as defined in section 9, may be considered as credit in a "mitigation bank". Establishment of any "mitigation bank" and use of any credits accrued from such a bank must be with the approval of the resource agencies and be consistent with the provisions stated in this policy. Monitoring of any approved mitigation bank shall be conducted on an annual basis until all credits are exhausted.

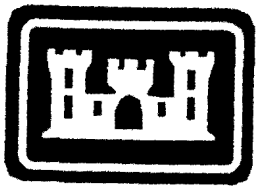
11. **Exclusions.**

1) Placement of a single pipeline, cable, or other similar utility line across an existing eelgrass bed with an impact corridor of no more than ½ meter wide may be excluded from the provisions of this policy with concurrence of the resource agencies. After project construction, a post-project survey shall be completed within 30 days and the results shall be sent to the resource agencies. The actual area of impact shall be determined from this survey. An additional survey shall be completed after 12 months to insure that the project or impacts attributable to the project have not exceeded the allowed ½ meter corridor width. Should the post-project or 12 month survey demonstrate a loss of eelgrass greater than the ½ meter wide corridor, then mitigation pursuant to sections 1-11 of this policy shall be required.

2) Projects impacting less than 10 square meters. For these projects, an exemption may be requested by a project applicant from the mitigation requirements as stated in this policy, provided suitable out-of-kind mitigation is proposed. A case-by-case evaluation and determination regarding the applicability of the requested exemption shall be made by the resource agencies.

EX-16

MONITORING OF LEAST TERN FORAGING PORT OF LOS ANGELES DEEPENING PROJECT, 2001



U.S. Army Corps of Engineers
Los Angeles District

Prepared by:

Keane Biological Consulting,
Long Beach, California

and

Aspen Environmental Group
Agoura Hills, California

January, 2002

SUMMARY

Comprehensive surveys were conducted from April through September, 2001 of the foraging behavior California least tern (*Sterna antillarum browni*) in the Los Angeles Harbor at the request of the U.S. Army Corps of Engineers, Los Angeles District (LAD). The purpose of the surveys was to determine whether a recent deepening project in the Los Angeles Harbor (Harbor) had affected the foraging behavior and ecology of California Least Terns, which nest at a prepared site on Pier 400 in the Harbor and forage in several areas of the Harbor, as evidenced by several previous foraging surveys. This report summarizes results of surveys conducted in 2001, the first of a three-year study, and compares results with those of surveys conducted in selected areas of the Harbor during previous years.

Surveys included observations at 29 stations throughout the Los Angeles Harbor; stations were selected based upon observations of foraging least terns during previous years; all stations were accessible by car or boat. Surveys were conducted once weekly from April 17 through September 11, 2001 by five observers with demonstrated experience in observations of least tern foraging behavior and in distinguishing least terns from other terns foraging in the Harbor. The behavior of least terns was observed and recorded on prepared data sheets at each station for a 20-minute period. Recorded data included the number of terns exhibiting the same behavior at same time, and the number of foraging dives (plunge into water to capture prey), foraging flights (flight over station with bill pointed down), and transit flights (direct flight from one destination to another). We also recorded tern life stage (adult versus fledgling, if distance allowed accurate identification), date, time, observer, and weather variables. Data were entered into a Microsoft Excel file and analyzed for total percentage of each foraging behavior and mean behaviors per survey. Data were combined for similar stations (and corrected for the number of stations) to compare foraging behavior among different foraging habitats in the Harbor.

Over 50% of total foraging dives during all surveys were recorded at the shallow water habitat area (SWHA) east of Pier 300. With outlier data removed, the Pier 300 shallow water area still supported more foraging dives than other stations; the second highest number of foraging dives (albeit less than half of those recorded at Pier 300) was at the Harbor entrance. Results were similar for foraging flights. Transit flights were highest at Pier 400 stations closest to the nesting site, where least terns were traversing to and from foraging areas.

Data were also analyzed by nesting stage. Foraging dives and foraging flights were most numerous at Pier 300 during the arrival/courtship, egg-laying and departure stages of the nesting season than other stations, but behaviors were more evenly distributed throughout the Harbor during chick-hatching and fledging stages of nesting.

Comparisons with survey results from previous years suggested that foraging behavior at selected stations (those surveyed in 2000) was substantially reduced from 2000 levels. The exception was an increase in transit flights at the Cabrillo SWHA, because least terns were traversing this station more frequently during 2001 than 2000 to access offshore foraging areas, where prey was apparently comparatively more abundant. Reports from Harbor bait barges also indicated a scarcity of scarce small bait fish, and higher chick mortality in 2001 as compared with 2000 suggested that least tern prey were less abundant in the Harbor during 2001 than during 2000, likely due to the presence of a widespread and persistent red tide.

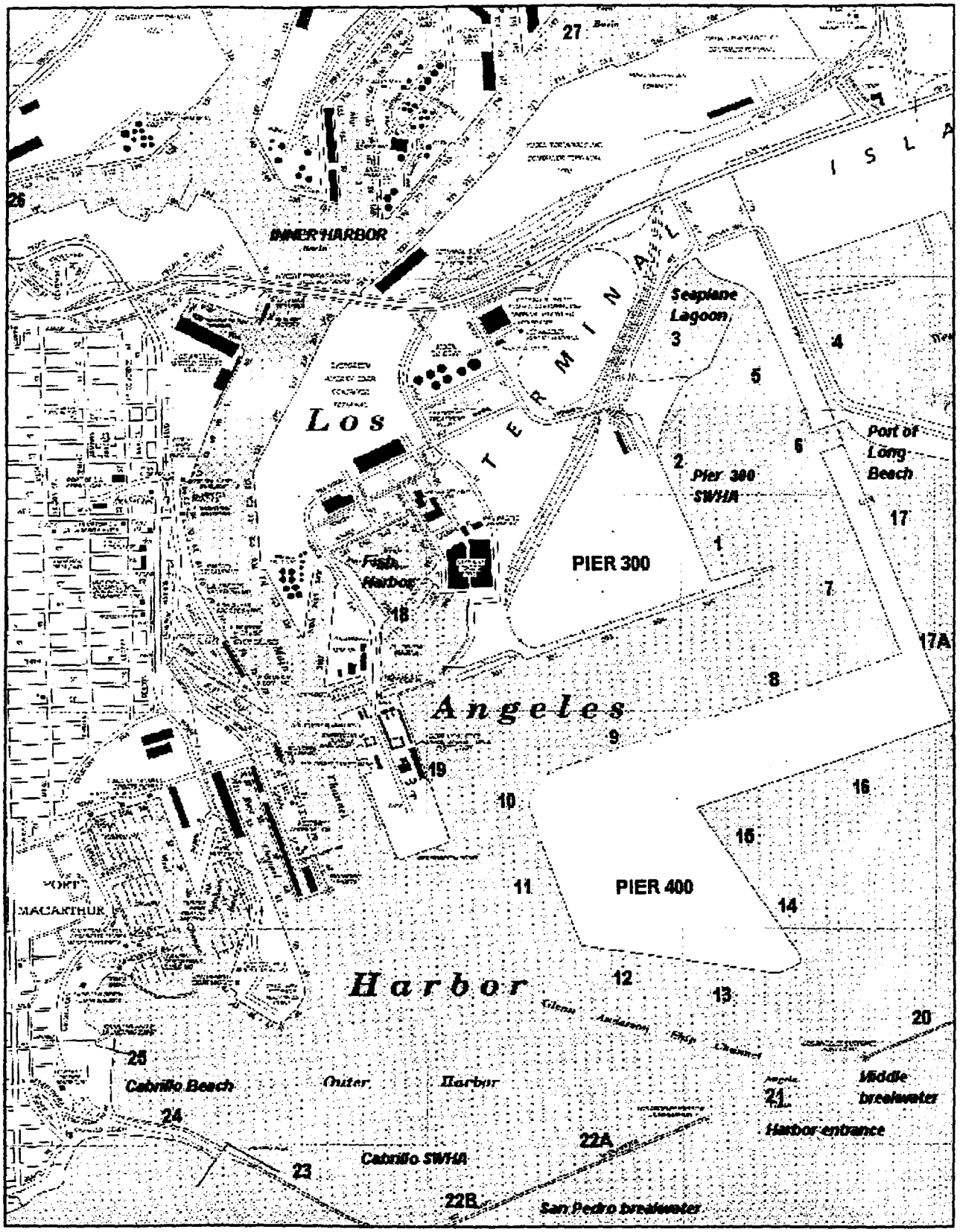


Figure 1. Locations of Least Tern Foraging Survey Stations, Los Angeles Harbor, 2001

EX-17

APPENDIX 1

Consistency Determination CD-050-00 (Corps of Engineers)

Date of Commission Concurrence: July 13, 2000

SIMPD

STATE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

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Tu13a

PROPOSED FINDINGS

ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-50-00
Staff:	LJS-SF
File Date:	5/5/2000
45th Day:	6/19/2000
60th Day: extended through	7/14/2000
Commission Vote:	7/13/2000
Hearing on Findings:	10/10/2000

FEDERAL AGENCY: **CORPS OF ENGINEERS**

PROJECT LOCATION: Port of Los Angeles and LA-2 and/or LA-3 offshore dredge material disposal sites, Los Angeles County **(Exhibits 1-4)**.

PROJECT DESCRIPTION: Phased review of a channel deepening and landfill construction project in the Port of Los Angeles. The overall project would: (1) deepen the inner harbor channels at the POLA from –45 feet to –53 feet mean lower low water; (2) dispose approximately 4.2 million cubic yards of dredged material (including 600,000 cu.yds. of contaminated sediments) to create a 54-acre expansion of the Cabrillo Shallow Water Habitat Area, a 35-acre landfill in the Southwest Slip, and a 40-acre landfill at Pier 300; (3) place the contaminated sediments within the Southwest Slip and/or Pier 300 landfills; (4) dispose an additional 2.4 million cu.yds. of dredged material at the LA-2 and/or LA-3 ocean disposal sites; and (5) mitigate marine habitat losses from the proposed landfills by using mitigation credits held by the Port of Los Angeles in the Port's

outer harbor mitigation account and in the Port's share of the Bolsa Chica wetlands restoration account.

This consistency determination includes all project elements except for the disposal of contaminated sediments at the Southwest Slip and/or Pier 300, and the disposal of clean sediments at LA-2 and/or LA-3; these elements will be the subject of a second consistency determination to be submitted by the Corps of Engineers later this calendar year.

PREVAILING COMMISSIONERS: Commissioners Daniels, Desser, Dettloff, Estolano, Hart, Kruer, McClain-Hill, Nava, Potter, Rose, Woolley, and Chairman Wan.

SUBSTANTIVE FILE DOCUMENTS:

1. Port of Los Angeles Port Master Plan (as amended).

2. Port of Los Angeles Port Master Plan Amendment No. 15 (Port Landfill Mitigation Credit Account/Bolsa Chica Wetlands Restoration, November 1995).

3. Consistency Determinations CD-57-92 and CD-2-97 (Corps of Engineers: Port of Los Angeles Deep Draft Navigation Improvement Project, Stages 1 and 2, respectively).

4. Negative Determinations ND- 103-97 and ND-25-99 (Corps of Engineers: Port of Los Angeles Deep Draft Navigation Improvement Stage 2 Project Modifications).

5. Consistency Determination CD-90-95 (U.S. Fish and Wildlife Service: Bolsa Chica Lowland Acquisition and Conceptual Wetland Restoration Plan).

EXECUTIVE SUMMARY

The Corps of Engineers has submitted the first of two consistency determinations for its proposed harbor deepening project in the Port of Los Angeles. The Corps proposes in the overall project to: (1) deepen the inner harbor channels from –45 feet to –53 feet mean lower low; (2) dispose approximately 4.2 million cubic yards of dredged material (including 600,000 cu.yds. of contaminated sediments) to create a 54-acre expansion of the Cabrillo Shallow Water Habitat Site, a 35-acre landfill in the Southwest Slip, a 40-acre landfill at Pier 300: (3) place the contaminated sediments within the Southwest Slip and/or Pier 300 landfills; (4) dispose an additional 2.4 million cu.yds. of dredged material at the LA-2 and/or LA-3 ocean disposal sites; and (5) mitigate marine habitat losses from the proposed landfills by using mitigation credits held by the Port of Los Angeles in the Port's outer harbor mitigation account and in the Port's share of the Bolsa Chica wetlands restoration account.

The Corps has agreed to a phased review of the proposed project pursuant to 15 C.F.R. Section 930.37(c), and will submit to the Commission at a later date (well in advance of the start of project construction in the spring of 2002) a second consistency determination that will address the final design decisions on the disposal of contaminated sediments at the Southwest Slip and/or Pier 300 and the disposal of clean sediments at LA-2 and/or LA-3. The second consistency determination will incorporate final EPA review of sediment test results and review by the Contaminated Sediments Task Force of the proposed disposal of contaminated sediments. The second consistency determination will also incorporate the results of modeling by the Corps of potential circulation changes, and the inferred water quality effects, in harbor waters between Cabrillo Beach and the Main Channel from four shallow water habitat development scenarios (no shallow water habitat; the shallow water habitat as it presently exists; the existing shallow water habitat with the proposed expansion; and the existing shallow water habitat with the proposed expansion and with a "hole in the breakwater", that is, a connection between the waters offshore of Cabrillo Beach and the ocean through the San Pedro Breakwater). The Corps seeks this initial Commission concurrence with the first consistency determination in order to secure federal funding for the project. The Commission's determination (as outlined, below) that the proposed project is consistent with the California Coastal Management Program (CCMP) is predicated on the Corps' agreement to submit a subsequent consistency determination for final project design, and on the Commission's ability to determine at that time whether the project remains consistent with the resource protection policies of the CCMP.

The project is designed to improve cargo handling efficiency at the Port of Los Angeles by deepening channels to provide safe access to inner harbor berths for the largest vessels in the international container ship fleet. Dredging and disposal to create new landfills and mitigation areas within the Port of Los Angeles, and disposal at the LA-2 and/or LA-3 ocean disposal sites, are consistent with the dredge and fill policies of the CCMP (Sections 30705 and 30233 of the Coastal Act). Sediments were tested and, except for approximately 600,000 cu.yds. of contaminated sediments to be placed in confined disposal sites within new landfills, were found physically and chemically suitable for unconfined aquatic disposal. The project will generate minor, short-term effects on water quality and marine resources in the Port. However, environmental commitments and mitigation measures incorporated into the project make it consistent with the water quality and marine habitat protection policies of the CCMP (Sections 30705, 30706, and 30708 of the Coastal Act).

The project includes restrictions on dredging and fill operations designed to protect the endangered California least tern and California brown pelican from significant, adverse project impacts in shallow water foraging areas used by both species. Additional foraging areas will be created using dredge spoils, and contaminated harbor bottom sediments will be capped to protect existing and new foraging areas. The project is therefore consistent with the fish and wildlife resource and habitat protection policies of the CCMP (Sections 30706 and 30708 of the Coastal Act). Disposal of 4.2 million cu.yds. of dredged material to create new landfills at Pier 300 and the Southwest Slip and expand the Cabrillo Shallow Water Habitat area, and disposal of 2.4 million cu.yds. of material at the LA-2 and/or LA-3 ocean disposal sites are consistent with the sand supply policies of the CCMP (Sections 30706, 30708, and 30233 of the Coastal Act). Dredging and filling activities will generate only minor and short-term impacts on commercial

and recreational fishing and boating within the Port and at the ocean disposal sites, and are consistent with the public recreation policies of the CCMP (Sections 30706, 30708, 30213, 30220, 30224, and 30234 of the Coastal Act).

STAFF SUMMARY AND RECOMMENDATION:

I. Staff Note.

A. Background. Since 1993 the Commission has concurred with numerous consistency determinations (CD-57-92 and CD-2-97), negative determinations (ND-103-97 and ND-25-99), and Port Master Plan Amendments (POLA PMPA Nos. 12, 13, 15, 17, and 19) for construction of the Port of Los Angeles Deep Draft Navigation Improvement Project (DDNI), which includes channel deepening, landfill and terminal construction, and mitigation measures for impacts to marine habitat. The subject consistency determination is a further refinement of the original DDNI project; a port master plan amendment for the subject development is expected from the Port of Los Angeles in the fall of 2000, well before project construction is scheduled to commence in April 2002.

The subject consistency determination was initially heard by the Commission at its June 14, 2000, hearing in Santa Barbara. The hearing was continued to the July 13 Commission meeting in order to provide the Commission additional information on the need for the proposed Pier 300 landfill and potential water quality impacts on Cabrillo Beach due to the proposed expansion of the Cabrillo Shallow Water Habitat Area. Full review of these two project elements by the Commission's technical services staff will not occur until after completion of this staff recommendation due to scheduling constraints. An addendum to this report will be prepared and delivered to the Commission at the July 13 meeting.

B. Phased Review. As of June 22, 2000, the Corps of Engineers has yet to make final design decisions on two project elements: (1) the location for disposal of approximately 600,000 cu.yds. of contaminated project sediments (to be placed at proposed landfills at Pier 300 and/or the Southwest Slip); and (2) the disposal location for approximately 2.4 million cu.yds. of clean (but structurally unsuitable for landfills) dredged sediments (to be placed at the LA-2 and/or LA-3 ocean disposal sites). In addition, final U.S. EPA review of sediment testing results is not completed for an area of contaminated sediments, and the Contaminated Sediments Task Force (CSTF) is still reviewing proposed plans for disposal of all project contaminated sediments at the Pier 300 and/or Southwest Slip landfill sites. As a result, the Corps of Engineers agreed to a phased review of the proposed project pursuant to 15 C.F.R. Section 930.37(c), and will submit to the Commission at a later date (well in advance of the start of project construction in the spring of 2002) a consistency determination that will address the final design decisions on issues (1) and (2), above, and incorporate final EPA review of sediment test results and the review by the CSTF of the proposed disposal of contaminated sediments. The second consistency determination will also incorporate the results of modeling by the Corps of potential circulation changes, and the inferred water quality effects, in harbor waters between Cabrillo Beach and the Main Channel from four shallow water habitat development scenarios (no shallow water habitat;

the shallow water habitat as it presently exists; the existing shallow water habitat with the proposed expansion; and the existing shallow water habitat with the proposed expansion and with a "hole in the breakwater", that is, a connection between the waters offshore of Cabrillo Beach and the ocean through the San Pedro Breakwater). The Corps seeks this initial Commission concurrence in order to secure federal funding for the project. The Commission's determination (as outlined, below) that the proposed project is consistent with the California Coastal Management Program (CCMP) is predicated on the Corps' agreement to submit a subsequent consistency determination for final project design, and on the Commission's ability to determine at that time whether the project remains consistent with the resource protection policies of the CCMP.

C. Standard of Review. The proposed harbor deepening project is examined for consistency with the policies of Chapter 8 of the Coastal Act because most of the development would occur within the jurisdictional boundary of the Port of Los Angeles; in addition, because the in-port developments are non-appealable there is no trigger for Chapter 3 policy review. However, the proposed disposal of dredged material at the LA-2 and/or LA-3 ocean disposal sites is examined for consistency with the Chapter 3 policies of the Coastal Act because the disposal sites are outside the Port boundary.

II. Project Description.

The proposed project is the first of two consistency determinations to be submitted by the Corps of Engineers for a phased Commission review of the Port of Los Angeles harbor deepening project, a further refinement of the previously-concurred with Deep Draft Navigation Improvement Project(CD-57-92 and CD-2-97). The Corps, in cooperation with the Port of Los Angeles, proposes to deepen the inner harbor channels within the Port from the existing –45 feet to –53 feet mean lower low water (MLLW) in order to accommodate the largest vessels in the international container ship fleet. The project would consist of dredging approximately 6.6 million cu.yds. of sediment over 670 acres of harbor bottom from the Los Angeles Main Channel, West Basin, East Channel, East Basin, and Cerritos Channel. While most of the sediment is clean and suitable for unconfined aquatic disposal, approximately 600,000 cu.yds. of contaminated sediment will be dredged from the West Basin and Reservation Point areas and placed within proposed landfills at the Southwest Slip and/or Pier 300 **(Exhibits 1-4)**.

Disposal of dredged material would occur at several locations. Approximately one million cu.yds. would be used to expand the existing Cabrillo Shallow Water Habitat (CSWH) site by approximately 54 acres. The dredged material would be supported by a new submerged dike on the north side, by the existing CSWH dike on the east side, and would slope down from its submerged elevation of –15 feet MLLW to the -20 foot MLLW contour on the west and south sides. The clean dredged material placed here would cap existing contaminated sediments present on the harbor bottom at this location, and the habitat value generated by this project element would add credits to the Port's existing Outer Harbor Mitigation Bank.

Approximately one and one-half million cu.yds. would be used to create a 40-acre landfill expansion at Pier 300. Dredged material would be placed behind a rock dike to a finished

elevation of +15 feet MLLW, and the landfill would be used to construct an additional container terminal and berth. Approximately 1.7 million cu.yds. would be used to create a 35-acre landfill in the Southwest Slip. Dredged material would be placed behind a rock dike to a finished elevation of +15 feet MLLW. The finished landfill would cap contaminated sediments currently on the harbor bottom at this location and would be used as backland for container terminal storage (two bridges would be constructed across the remnant Southwest Slip channel to connect the new landfill with an existing container terminal). Both locations could be used as a confined aquatic disposal facility for approximately 600,000 cu.yds. of contaminated dredge material to be removed from the West Basin and Reservation Point.

Lastly, approximately 2.4 million cu.yds. of clean, fine-grained dredged material unsuitable for structural fill or beach replenishment would be disposed at LA-3 and/or LA-2 ocean disposal sites.

This first consistency determination includes all project elements except for the disposal of contaminated sediments at the Southwest Slip and/or Pier 300, and the disposal of clean sediments at LA-2 and/or LA-3; these elements will be the subject of a second consistency determination to be submitted by the Corps of Engineers at a later date. In addition, the second consistency determination will also incorporate the results of modeling by the Corps of potential circulation changes, and the inferred water quality effects, in harbor waters between Cabrillo Beach and the Main Channel from four shallow water habitat development scenarios (no shallow water habitat; the shallow water habitat as it presently exists; the existing shallow water habitat with the proposed expansion; and the existing shallow water habitat with the proposed expansion and with a "hole in the breakwater", that is, a connection between the waters offshore of Cabrillo Beach and the ocean through the San Pedro Breakwater).

III. Status of Local Coastal Program.

The standard of review for federal consistency determinations is the policies of Chapter 3 and Chapter 8 of the Coastal Act, and not the Local Coastal Program (LCP) of Port Master Plan (PMP) of the affected area. If the LCP or PMP has been certified by the Commission and incorporated into the CCMP, it can provide guidance in applying Chapter 3 and Chapter 8 policies in light of local circumstances. If the LCP or PMP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The Port of Los Angeles PMP has been certified by the Commission and incorporated into the CCMP.

IV. Federal Agency's Consistency Determination.

The Corps of Engineers has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

V. Commission Decision.

On July 13, 2000, the Commission adopted the following resolution:

Agreement

*The Commission hereby **agrees** with consistency determination CD-50-00 by the U.S. Army Corps of Engineers, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).*

VI. Staff Recommendation. The staff recommends that the Commission adopt the following motion in support of its action:

MOTION: *I move that the Commission **adopt** the following findings in support of its agreement with the Corps' consistency determination.*

STAFF RECOMMENDATION:

*Staff recommends a **YES** vote on the motion. A majority vote by the prevailing Commissioners listed on page 2 of this report will result in the adoption of the following findings:*

VII. Findings and Declarations.

The Commission finds and declares as follows:

A. Dredging and Filling. Section 30705 of the Coastal Act provides the following in relevant part:

(a) Water areas may be diked, filled, or dredged when consistent with a certified port master plan only for the following:

(1) Such construction, deepening, widening, lengthening, or maintenance of ship channel approaches, ship channels, turning basins, berthing areas, and facilities as are required for the safety and the accommodation of commerce and vessels to be served by port facilities.

(2) New or expanded facilities or waterfront land for port-related facilities.

(3) New or expanded commercial fishing facilities or recreational boating facilities.

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

(5) Mineral extraction, including sand for restoring beaches, except in biologically sensitive areas.

(6) Restoration purposes or creation of new habitat areas.

(7) Nature study, mariculture, or similar resource-dependent activities.

(8) Minor fill for improving shoreline appearance or public access to the water.

(b) The design and location of new or expanded facilities shall, to the extent practicable, take advantage of existing water depths, water circulation, siltation patterns, and means available to reduce controllable sedimentation so as to diminish the need for future dredging.

. . .

(d) For water areas to be diked, filled, or dredged, the commission shall balance and consider socioeconomic and environmental factors.

Section 30233 of the Coastal Act provides the following in relevant 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:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

. . .

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

The proposed dredging and disposal activity within the Port of Los Angeles needs to be examined for consistency with Section 30705 of the Coastal Act, and the proposed disposal at LA-2 and/or LA-3 needs to be examined for consistency with Section 30233 of the Coastal Act. Under Section 30705, water areas may be dredged and filled when consistent with a port master plan and when the proposed project is an allowable use. Under Section 30233(a), dredging and filling of open waters is limited to those cases where the proposed project is an allowable use, where there is no feasible less environmentally damaging alternative, and where mitigation measures have been provided to minimize environmental impacts.

The dredging to deepen inner harbor channels, create new landfills at Pier 300 and the Southwest Slip, place contaminated sediments at one or both of the two proposed landfills, and expand the Cabrillo Shallow Water Habitat area in the Port of Los Angeles (POLA) are allowable uses under Section 30705(a)(1, 2, and 6). POLA port master plan amendments have been certified by the Commission over the past seven years in order to provide for the ongoing expansion of the port. A port master plan amendment for the proposed channel deepening, landfills, and terminal development is scheduled to be submitted by POLA to the Commission in the fall of 2000. The Commission typically reviews a Corps consistency determination for POLA navigation improvements concurrently with a port master plan amendment to incorporate into the master plan the new upland areas created, new channel depths, and new land and water uses. In this instance, however, the consistency determination precedes the plan amendment by several months due to the Corps' need to incorporate the project this summer into the 2000 Water Resources Development Act. The fact that project construction will not commence until April 2002 means that the Corps project would in theory be consistent by then with the port master plan. However, should the Commission **not** certify the upcoming plan amendment, then the Corps project could not go forward as the POLA would be unable to issue coastal development permits for any of the project elements due to inconsistency with the port master plan. In addition, the Commission will also be reviewing later this year a second consistency determination from the Corps for the final sediment disposal elements for the project. Commission concurrence with those elements will be required before any project construction could commence.

The disposal of dredged materials from the expansion of port facilities at the LA-2 and/or LA-3 ocean disposal sites is an allowable use under Section 30233(a)(1). Both proposed disposal locations are EPA-approved disposal sites, and disposal here is the least damaging alternative for disposal of the project's clean dredged materials, which are not suitable for beach replenishment due to grain size incompatibility. The project DEIS examined numerous disposal alternatives, but given the structural unsuitability of the subject 2.4 million cu.yds., ocean disposal was determined to be the least environmentally damaging alternative. However, these sediments may possibly be used to cap contaminated sediments at the Palos Verdes shelf site if it becomes feasible to use fine-grained materials at that site. The final decision on the volume of clean dredged materials going to LA-2 and/or LA-3 will be incorporated into the second consistency determination for this project. At this time, however, the Commission finds that the material is clean and suitable for ocean disposal.

As discussed below, the project will have no significant impacts on coastal resources and no additional mitigation measures (beyond the measures already incorporated into the project by the Corps of Engineers) are necessary. Therefore, the Commission finds that the proposed project is consistent with the dredge and fill policies of the California Coastal Management Program (Sections 30705 and 30233 of the Coastal Act). This finding is based on the information submitted to date, which does not contain final project details regarding the volumes of contaminated sediments placed at the proposed landfills at Pier 300 and/or the Southwest Slip, and the volumes of clean dredged materials to be placed at the LA-2 and/or LA-3 ocean disposal sites. These details will follow and be the subject of subsequent federal consistency review by the Commission.

B. Water Quality and Marine Resources. Section 30705 of the Coastal Act provides in relevant part that:

. . .

(c) Dredging shall be planned, scheduled, and carried out to minimize disruption to fish and bird breeding and migrations, marine habitats, and water circulation. Bottom sediments or sediment elutriate shall be analyzed for toxicants prior to dredging or mining, and where water quality standards are met, dredge spoils may be deposited in open coastal water sites designated to minimize potential adverse impacts on marine organisms, or in confined coastal waters designated as fill sites by the master plan where such spoil can be isolated and contained, or in fill basins on upland sites. Dredge material shall not be transported from coastal waters into estuarine or fresh water areas for disposal.

(d) For water areas to be diked, filled, or dredged, the commission shall balance and consider socioeconomic and environmental factors.

Section 30706 of the Coastal Act provides that:

In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:

(a) The water area to be filled shall be the minimum necessary to achieve the purpose of the fill.

(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water.

(c) The fill is constructed in accordance with sound safety standards which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters.

(d) The fill is consistent with navigational safety.

Section 30708 of the Coastal Act provides that:

All port-related developments shall be located, designed, and constructed so as to:

(a) Minimize substantial adverse environmental impacts.

(b) Minimize potential traffic conflicts between vessels.

(c) Give highest priority to the use of existing land space within harbors for port purposes, including, but not limited to, navigational facilities, shipping industries, and necessary support and access facilities.

(d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible.

(e) Encourage rail service to port areas and multicompany use of facilities.

The project DEIS documents in great detail the existing water quality conditions and marine resources in the Port of Los Angeles and examines potential project impacts and associated mitigation measures. The DEIS states that the proposed project will include the following water quality protection measures:

A Section 401 (of the Clean Water Act) Certification from the RWQCB for dredging and filling activities that contains conditions including standard Waste Discharge Requirements (WDR).

Monitoring to ensure that return water flow from disposal of dredge material behind Pier 300 dikes meets the RWQCB requirements for settleable solids and toxic pollutants.

Contaminated sediments will be placed and confined in the in-harbor disposal sites in such a manner that the contaminants cannot enter harbor waters after the fill is complete.

Monitoring to ensure that runoff from upland disposal sites meets RWQCB requirements for toxic contaminants and suspended sediments.

Water quality monitoring will be used, to the extent feasible, to design the Pier 300 fill so that water quality is minimally affected in the remaining shallow water habitat and the Seaplane Anchorage. Any reduction in water quality would require mitigation as described in section 3.4, Biota and Habitats.

Oil and sewer pipelines to be removed will be thoroughly cleaned prior to removal.

Water quality in the project area would be affected during dredge and fill operations, primarily increases in turbidity, decreases in dissolved oxygen, increases in nutrients, and increases in contaminants in the immediate vicinity of operations. These localized water column impacts will in turn affect fish and marine birds in the project area. However, any adverse effects will be limited due to the nature of the dredged materials, the short-term nature of the water column changes, and the ability of fish and birds to avoid the turbidity plumes generated by project operations. Extensive water quality monitoring during Stage 1 and 2 of the Pier 400 Deep Draft Navigation Improvement Project failed to detect any significant, adverse, long-term impacts to water quality in the outer harbor as a result of dredging or disposal activities, and none are

anticipated for the similar inner and outer harbor operations included in the proposed project. While contaminants could be released into the water column during the proposed dredge and disposal activities that involve contaminated sediments in the West Basin and near Reservation Point, previous water quality monitoring efforts associated with both project and maintenance dredging in the Port of Los Angeles documented that substantial resuspension of contaminated sediments does not occur. The Corps reports in the DEIS that:

> *Because little contamination is present in the sediments to be dredged and because resuspension of sediments is expected to be low and in a small area, dredging in the inner harbor would not adversely affect water quality in terms of contaminants.*
>
> *Removal of the contaminated sediments through dredging would improve the sediment quality in the harbor, a beneficial impact.*
>
> . . .
>
> *Removal of the top layer of sediment which, in some areas, contains accumulated contaminants and sediments deposited over time from numerous sources, including terrestrial inputs such as stormwater runoff and aerial deposition, would decrease the potential for bioaccumulation of contaminants in aquatic organisms. Placing the contaminated sediments in a landfill would, thus, provide an overall benefit to organisms in the harbor by removing a source of pollutants.*

Capping a portion of the toxic hot spot adjacent to the Cabrillo Shallow Water Habitat area with clean sand and capping contaminated sediments in the Southwest Slip with a new landfill will prevent resuspension of the contaminated sediments and release of contaminants into the water column at both locations. These project elements are considered long-term benefits and will improve water quality in the Port of Los Angeles.

Marine biological resources in the project area have been documented in a number of environmental documents prepared for the Deep Draft Navigation Improvement Project and subsequent modifications in the Port of Los Angeles, and are incorporated by reference in the subject project's DEIS. Habitats to be dredged are mainly deep, soft bottom areas and fill sites are deep and shallow soft bottom areas. Eelgrass has become established in shallow waters off Cabrillo Beach (54 acres), the Pier 300 shallow water area (18 acres), and the Seaplane Lagoon (9 acres)**(Exhibit 5)**. Sparse and low-quality pickleweed is found at isolated patches within the rip rap uplands of the Southwest Slip. Port waters serve as transient or permanent habitat for over 130 species of juvenile or adult fish. Species richness and diversity increase along a gradient from the Inner to the Outer Harbor.

Dredging would eliminate benthic organisms in and on the 670 acres of soft bottom habitat to be deepened. Newly exposed sediments would recolonize within five years based on past dredging operations in the Port, and therefore this adverse impact is not considered significant. Fish in the water column would be temporarily disturbed by project activities as a result of turbidity, noise, and vibration, and most would leave the immediate area of operations. Effects on fish

populations are expected to be similar to those of previous harbor deepening and landfill projects and generate no significant, adverse impacts.

The Pier 300 landfill expansion would cause a loss of 40 acres of shallow water, soft bottom habitat that serves as a nursery for a number of fish species, contains eelgrass, and is a foraging area for the California least tern (see below). Mitigation will occur through the use of existing port mitigation credits as approved by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game. Loss of 0.4 acres of dense and 7.7 acres of sparse eelgrass will be replaced at a 1.2:1 ratio in the Pier 300 shallow water habitat area, Seaplane Lagoon, or Cabrillo Beach. The Southwest Slip landfill would cause a loss of 35 acres of soft bottom habitat and mitigation will occur similar to that for the Pier 300 landfill. The Port will salvage and transplant the sparse and low-quality 4,500 square feet of pickleweed here to either the Cabrillo Salt Marsh in the harbor or to an offsite location, as agreed to by the USFWS, NMFS, and CDFG. Expanding the Cabrillo Shallow Water Habitat area would convert 54 acres of deep soft bottom habitat to shallow soft bottom habitat. Colonization of the shallow fill is expected to result in a higher density of organisms as reflected in the recent surveys of the existing Cabrillo Shallow Water Habitat and nearby deep water habitat. Capping a part of the state-listed toxic hot spot near the Cabrillo Pier is a beneficial effect from the fill operation here. **Exhibit 9** provides a list of the mitigation measures to be used to limit adverse project impacts on marine resources.

In a June 8, 2000, letter to the Commission **(Exhibit 14)**, the environmental group Heal the Bay raised a concern regarding potential water quality impacts at Cabrillo Beach from the proposed expansion of the Cabrillo Shallow Water Habitat Area:

> *The Cabrillo Beach is a popular swimming area that routinely has the worst microbiological water quality in LA County and consistently receives an "F" on Heal the Bay's Beach Report Card during both dry and wet weather. In fact, State Health Department water contact standards are exceeded over 60% of the time during dry weather. This beach is listed on the SWRCB's 303(d) list as impaired for recreational water contact due to high fecal bacteria densities measured at the shoreline of this beach. The proposed expansion of the Cabrillo SWH will likely further reduce water circulation at this beach, and could cause even higher bacteria densities. Higher bacteria densities indicate higher health risk associated with swimming at the beach.*

Heal the Bay also distributed a graph, "Cabrillo Beach - Exceedances Enterococcus," at the June 14 Commission meeting, which is attached to this report as **Exhibit 15.**

The Port of Los Angeles responded to this concern (and other Heal the Bay comments on the project) in a June 12, 2000, letter to the Commission **(Exhibit 16)** which states in part that:

> *Extensive sampling at the inner Cabrillo Beach are indicates that high levels of bacteria along the shoreline at this location, which is over one-quarter of a mile from the new Shallow Water Habitat, are likely caused by birds which roost on the beach.*

Water quality indicators (including dissolved oxygen, transparency, and biological oxygen demand (BOD)) just off shore of Cabrillo Beach have, if anything, improved with construction of the Cabrillo Shallow Water Habitat.

Water quality and hydrodynamic specialists at the Corps' Waterways Experiment Station indicate that construction of the new shallow water will have no concentrating effect on the bacteria levels at the Inner Cabrillo Beach and may result in more water movement in the area.

In a separate response to Heal the Bay's comment letter to the Port of Los Angeles **(Exhibit 17)**, the Port states in part that:

The Inner Cabrillo Beach has had chronic high levels of bacteria, and unlike at least some beaches, these high levels occur during low runoff periods. Extensive sampling of the beach and infrastructure (storm drains and sewer lines) surrounding the beach have shown birds, which roost on the beach in large numbers, as the likely source of the high bacteria counts on the beach. While a strong current running along the beach might act to disperse bacteria, to our knowledge, there is no information that substantiates Heal the Bay's claim that "Poor water circulation in the beach area contributes to the high bacteria densities measures at this beach" or that construction of the existing Cabrillo Shallow Water Habitat has "been exacerbated by the Cabrillo SWH the Port constructed in the early 1990s."

. . .

Recent discussions with Dave Marke and Berry Bunch at the Waterways Experiment Station in Vicksburg indicated that expansion of the Cabrillo Shallow Water Habitat would not have any effect on the circulation in the shallow water adjacent to the Inner Cabrillo Beach. However, a reduction in water volume in this area of the harbor may increase tidal velocities, which could increase water exchange in the area. Expansion of the eelgrass in the area of Cabrillo Beach in recent years indicates that the water quality in the area is good, although the eelgrass itself may tend to reduce circulation between the eelgrass bed and the beach.

To further address these concerns regarding circulation and water quality in the project area between Cabrillo Beach and the Main Channel, the Corps stated that the second consistency determination for this project will now incorporate the results of modeling by the Corps of potential circulation changes, and the inferred water quality effects, in harbor waters between Cabrillo Beach and the Main Channel from four shallow water habitat development scenarios (no shallow water habitat; the shallow water habitat as it presently exists; the existing shallow water habitat with the proposed expansion; and the existing shallow water habitat with the proposed expansion and with a "hole in the breakwater", that is, a connection between the waters offshore of Cabrillo Beach and the ocean through the San Pedro Breakwater.

The Corps also has committed (as an additional element of the subject consistency determination) to undertake post-construction monitoring of circulation and water quality in the project area (between Cabrillo Beach and the Main Channel), and to submit a consistency determination for mitigation/remediation work if the monitoring results indicate unexpected adverse effects on circulation or water quality in the project area caused by the expansion of the shallow water habitat. Water quality in the project area will be evaluated by measuring dissolved oxygen, turbidity/transparency, and temperature. The Corps will include the circulation/water quality monitoring plan in the second consistency determination for Commission review and approval prior to finalizing and implementing the plan, and will submit the monitoring results as they become available to the Commission staff.

In conclusion, the Commission finds that the proposed harbor deepening project will generate only minor, short-term effects on water quality and marine resources in the Port of Los Angeles. Dredging and disposal activities will not result in any significant, adverse effects on the coastal zone due to the nature of the dredged materials, the location of the disposal sites, and the environmental commitments incorporated into the project. Therefore, the Commission finds that the proposed project is consistent with the water quality and marine habitat protection policies of the CCMP (Sections 30705, 30706, and 30708 of the Coastal Act). However, because of the phased review process for this project agreed to by the Corps of Engineers, the Commission will review the final project design for disposal of contaminated sediments at in-harbor sites, the aforementioned circulation/water quality modeling results, and the post-construction circulation/water quality monitoring plan at a later date in a second consistency determination in order to ensure that disposal of contaminated sediments and construction of the shallow water habitat expansion will not adversely affect circulation, water quality, and marine resources in the harbor, and to ensure that the project remains consistent with the water quality and marine habitat protection policies of the CCMP.

C. **Environmentally Sensitive Habitat.** Sections 30706 and 30708 of the Coastal Act provide in relevant part that:

> 30706. *In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:*
>
> . . .
>
> *(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water. . . .*
>
> 30708. *All port-related developments shall be located, designed, and constructed so as to:*

(a) Minimize substantial adverse environmental impacts.

. . .

(d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible. . . .

The proposed project could potentially affect marine habitat used by two federally endangered species, the California least tern and the California brown pelican. The Draft EIS for the project describes the habitat needs of, potential project impacts on, and associated mitigation measures for these species. While the least tern has nested on Pier 300 since the mid-1970s, since 1997 the only successful nesting has taken place on the newly-constructed Pier 400; in 1998 the Pier 300 site was decommissioned. Least tern nesting in the Port has been monitored since 1974 and the data indicate that harbor dredging projects that include measures to protect terns have not adversely affected tern nesting **(Exhibit 6)**. For the 1999 nesting season, one 15-acre site in the southeast corner of Pier 400 was designated as the tern nesting site and the entire southern portion of Pier 400 was identified as a tern management area where no construction would occur. Monitoring in 1999 showed that a majority of the terns nested in the management area (280 nests), at one location in the pier surcharge area (4 nests), and at two locations on the transportation corridor (83 nests). Least terns forage primarily over shallow water (less than 20 feet deep) in the outer harbor near Pier 300, Cabrillo Beach and salt marsh, the West Basin in the Port of Long Beach, and the Cabrillo Shallow Water Habitat Area. However, in recent years the terns have also foraged in deeper harbor waters south and east of the new Pier 400 landfill.

The California brown pelican resides in the harbor year round but its abundance is greatest during the period between July and November. The pelican prefers to roost on the harbor breakwater dikes and forages over open harbor waters for several species of fish.

The Corps states that the proposed dredging would have no significant adverse effects on endangered species. The inner harbor channels to be dredged are not considered significant foraging areas for least terns or brown pelicans, and, therefore, dredging and related turbidity in these areas are not expected to affect these species.

The proposed Pier 300 landfill would result in a permanent loss of shallow water habitat that is used by least terns as foraging habitat. The fill would also alter circulation in the remaining shallow water habitat in this area which could then cause a degradation of the habitat value that remains. Loss and degradation of shallow water habitat would be mitigated through use of existing port mitigation credits and the creation of additional shallow water habitat in the Outer Harbor. No turbidity will be allowed in the Pier 300 shallow water areas during the tern nesting season between April and September. With these mitigation measures, the USFWS determined that the proposed landfill would not adversely affect either the California least tern or California brown pelican.

The 35-acre Southwest Slip landfill would cause a permanent loss of soft bottom fish and bird habitat (some of currently contaminated) and would be mitigated through use of existing

mitigation credits and/or the creation of additional credits in the Outer Harbor. However, this area is not used by least terns or brown pelicans and the landfill would not adversely affect either of these species.

Proposed expansion of the Cabrillo Shallow Water Habitat Area by 54 acres would convert deep water habitat to shallow water habitat at an elevation of approximately -15 feet MLLW. The expansion would also cap part of the State of California-listed toxic hot spot located near the Cabrillo Pier; this is considered a beneficial impact for protecting this foraging area used by terns and pelicans. Placement of fill material at this location will be timed to avoid the least tern nesting season and/or will be designed to assure that turbidity does not enter the existing shallow water area in order to avoid impacts to least tern foraging activity. Formation of additional shallow water habitat will benefit the least tern once its prey species become established in the new area. The Corps reports that based on surveys in August 1999, fish abundance and species composition were similar during the daytime at the Pier 300 and Cabrillo Shallow Water Habitat areas, five years after the Cabrillo habitat was created. Least tern foraging surveys in 1996, however, showed less use of the Cabrillo area relative to the Pier 300 area, which could be related to tern behavior rather than abundance of fish at the Cabrillo Habitat area.

The Port of Los Angeles develops mitigation plans for impacts to fish and wildlife species in coordination with the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Game through agreed-upon mitigation policies. **Exhibit 7** shows the estimated number of current mitigation credits available for use in the proposed project. **Exhibit 8** illustrates how those credits would be used in the proposed project. **Exhibit 9** illustrates the marine resources and endangered species mitigation measures to be used in the proposed project. **Exhibit 10** provides information on the mitigation monitoring program for the project. In addition, in its May 15, 2000, letter to the Corps of Engineers **(Exhibit 11)**, the U.S. Fish and Wildlife Service commented on the proposed project as follows:

> *We had produced a Biological Opinion (BO), for the Deep Draft Navigation Improvements Project in 1992 (1-6-92-F-25, September 24, 1992), addressing potential impacts to the California least tern (Sterna antillarum browni) and the California brown pelican (Pelecanus occidentalis californicus). Phases 1 and 2 of that project are nearly completed. The least tern, in particular, has been very well served by the actions of the local sponsor, Port of Los Angeles, who has acted in compliance with the nest management agreement, nest site monitoring, essential foraging area mitigation and protection, all requirements of the 1992 EIS and BO.*
>
> *We completed a Planning Aid Report in August of 1999, and a draft Fish and Wildlife Coordination Act Report (FWCAR) in January 2000, for the subject supplemental project and expect to complete a final FWCAR very soon. As your letter confirms, we have been in discussions, that is, informal consultation, with the Corps of Engineers and the local sponsor, the Port of Los Angeles since last year. By mutual design, the dSEIS includes agreed upon protection measures for the California least tern and acts as a Biological Assessment, as well.*

The project description components that would assure that the listed species, particularly the least tern, would not be adversely affected are listed on pages 3.4-20 through 23 of the dSEIS. In general, those elements include: protection and management of a designated nesting area pursuant to written agreement, through construction timing and monitoring protection of specifically designated essential shallow water foraging areas from degradation during construction, and offsetting, acre-for-acre and near the nesting site, of any loss of shallow water foraging area in advance of loss.

No other listed species may be affected by the proposed channel deepening and landfill construction project. Therefore, provided the project is implemented as described in the dSEIS, we concur that no listed species would be adversely affected by the project and Formal Consultation, pursuant to section 7 of the Endangered Species Act is not warranted. . . .

The National Marine Fisheries Service stated in its May 5, 2000, letter to the Port of Los Angeles **(Exhibit 12)** that:

The proposed project is located in an area identified as Essential Fish Habitat (EFH) for fish species federally managed under the Pacific Groundfish Fishery Management Plan and Coastal Pelagic Fishery Management Plan. Based on our review of the information contained in the DSEIS/DSEIR, NMFS believes that the proposed project, including implementation of the described mitigation, would not result in an adverse impact on EFH and other NMFS-trust fishery resources.

The California Department of Fish and Game stated in its May 16, 2000, letter to the Port of Los Angeles **(Exhibit 13)** that:

The DSEIS/DSEIR is adequate in its portrayal of impacts to fish and wildlife resources and habitats associated with the preferred project and alternatives. Therefore, the Department does not object to the adoption of the recommended plan alternative provided the described mitigation measures are implemented.

In a June 8, 2000, letter to the Commission **(Exhibit 14)**, the environmental group Heal the Bay raised a concern "about the use of dredged materials to fill in more of San Pedro Bay" and the need for the proposed Pier 300 landfill:

The expansion of Pier 300 will result in the permanent destruction of an estimated 20% of the preferred foraging habitat for the California least tern. The expansion of the Cabrillo Shallow Water Habitat (SWH) may not mitigate this loss.

. . .

To date, it does not appear the Port has considered project alternatives such as upland disposal of dredged materials; beneficial reuse of the dredged materials for products such as concrete; and a smaller-scale project which would generate less dredge material.

The Port of Los Angeles responded to Heal the Bay's concerns about the need for and alternatives to the project landfills in the Port's June 12, 2000, letter to the Commission **(Exhibit 16)** and in the Port's separate response to Heal the Bay's May 22, 2000, letter **(Exhibit 17)**. The information contained in these response letters and in the project DSEIS/SEIR adequately documents: (1) the range of project alternatives considered; (2) the need for the Pier 300 landfill to support current and future cargo handling requirements at this container terminal; and (3) the conclusion that the proposed landfill will have no adverse effect on the foraging activity and population of California least terns.

To further address the concerns regarding potential adverse effects on least terns, the Corps has committed (as an additional element of the subject consistency determination) to undertake post-construction monitoring of least tern foraging activity in the project area, and to submit a consistency determination for mitigation/remediation work if the monitoring results indicate unexpected adverse effects on least terns caused by construction of the Pier 300 landfill expansion. The Corps will include the monitoring plan in the second consistency determination for Commission review and approval prior to finalizing and implementing the plan, and will submit the monitoring results as they become available to the Commission staff.

In conclusion, with the mitigation measures outlined in the consistency determination and project DSEIS/SEIR, with the considerations discussed in previous sections (i.e., subsequent review of final project design, in particular, dredge material disposal locations and design), and with the aforementioned additional environmental commitments made by the Corps, the Commission finds that the proposed dredging and filling will not significantly affect the endangered California least tern or California brown pelican and is consistent with the fish and wildlife resource and habitat protection policies of the CCMP (Sections 30706 and 30708 of the Coastal Act).

D. Sand Supply. Sections 30706 and 30708 of the Coastal Act provide in relevant part that:

> 30706. *In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:*
>
> *(a) The water area to be filled shall be the minimum necessary to achieve the purpose of the fill.*
>
> *(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water.*

30708. *All port-related developments shall be located, designed, and constructed so as to:*

(a) Minimize substantial adverse environmental impacts.

. . .

(d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible. . . .

Section 30233(b) of the Coastal Act provides that:

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 such purposes to appropriate beaches or into suitable long shore current systems.

The Port of Los Angeles proposes to dispose up to 2.4 million cu.yds. of dredged material at LA-2 and/or LA-3, EPA-approved ocean dredge material disposal sites, the former located seven miles offshore from the Port of Los Angeles and the latter five miles offshore from Newport Beach. Dredged material placed at these sites would not be available for beach replenishment after disposal. Analysis indicates that the dredged material is not suitable for beach placement due to the predominately small grain size of the material. Since the material is predominately silt and clay, wave energy would move this relatively fine material off the beaches and out of the littoral system if the material were placed on the beach or in the nearshore zone. Therefore, the Commission finds that the 2.4 million cu.yds. of clean but structurally unsuitable dredged materials are also not suitable for beach replenishment, and that the proposed disposal of the 2.4 million cu.yds. of material at LA-2 and/or LA-3 is consistent with the sand supply policies of the California Coastal Management Program (Sections 30706, 30708, and 30233 of the Coastal Act). The volumes of clean dredged material to be placed at one or both of the ocean disposal sites will be finalized by the Corps of Engineers at a later date and will be a component of the previously-mentioned second consistency submittal for this project under the phased review process agreed to by the Corps of Engineers.

E. Recreation. The Coastal Act provides in the following sections that:

30213. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. . . .*

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

30224. *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.

30234. *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.*

30234.5. *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

30706. *In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports:*

. . .

(b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water. . . .

30708. *All port-related developments shall be located, designed, and constructed so as to:*

(a) Minimize substantial adverse environmental impacts.

. . .

(c) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible. . . .

The Commission must examine project consistency with recreational resources at the LA-2 and LA-3 ocean disposal sites and those located in the Port of Los Angeles. Regarding the former two sites, in the second consistency determination for this phased-review project that will be submitted by the Corps in the fall of 2000, the final volumes of clean dredged material to be placed at the LA-2 and LA-3 sites will be provided to the Commission. In this subject consistency determination, the Commission must determine whether the general use of the ocean disposal sites is consistent with the CCMP. In its 1997 review of the redesignation of the LA-2 ocean disposal site, the Commission examined the previous twenty years of disposal activity at

LA-2 and adopted the following findings regarding commercial and recreational fishing at and near LA-2:

> *The Commission's interest in the effect of the use of the disposal site on benthic resources and on turbidity at and near LA-2 is generated by concern over the effect of the site on economically, recreationally, and biologically important fish species. It appears from the data presented so far that the designation of LA-2 has not affected fishery resources of the area. To provide further evidence of this conclusion, EPA conducted an analysis of recreational and commercial fish catch to determine if use of LA-2 has caused a noticeable reduction of fish catches as compared to trends of the region. Based on these studies, EPA concludes that dredged material disposal at LA-2 has not caused any significant effect on recreational and commercial fish catches.*

With the Commission's 1997 concurrence in the redesignation of the LA-2 ocean disposal site, the proposed disposal of clean dredged material at LA-2 will not generate significant adverse effects on commercial or recreational fishing. The disposal site is located seven miles from shore and disposal activities will not affect public access to or recreational use of the offshore area. Therefore, the Commission finds that proposed disposal at LA-2 is consistent with the commercial and recreational fishing and boating policies of the California Coastal Management Program (Sections 30234, 30234.5, 30220, and 30224 of the Coastal Act).

The LA-3 site is located in an area devoid of submerged relief and at a depth beyond most commercial bottom fishing. While a setline dory fishery exists in the general area of LA-3, dredged material disposal has not adversely affected this fishery in the past, and there is no indication that continued disposal at LA-3 will generate adverse effects on this fishery. Likewise, there are no significant recreational fisheries in the area that could be affected by the project. The site is outside the designated vessel traffic approach lanes for the Ports of Los Angeles and Long Beach, and no significant effects on commercial shipping are generated by use of LA-3. In addition, use of LA-3 will not affect recreational boating in the area. Therefore, the Commission finds that proposed disposal at LA-3 is consistent with the commercial and recreational fishing and boating policies of the California Coastal Management Program (Sections 30234, 30234.5, 30220, and 30224 of the Coastal Act).

The project activities within the Port of Los Angeles must be consistent with the recreational policies in Sections 30706 and 30708 of the Coastal Act. The proposed dredging and filling that would occur in the inner harbor channels, Pier 300, the Southwest Slip, and adjacent to the Cabrillo Shallow Water Habitat would not generate adverse effects on recreational activity in the Port. No existing public access or recreation areas will be eliminated or created by the proposed project. Dredging will not affect the existing commercial recreational facilities at Ports O' Call Village on the west side of the main channel. On-water recreational boating will be restricted in the immediate areas of active dredging and filling, and some inconvenience to recreational boaters traveling within the harbor may occur due to project activities, but these are not considered significant impacts. The proposed Pier 300 and Southwest Slip landfill sites are not recreation areas due to the existing cargo terminal and industrial activities that occur here; proposed landfills will not affect public access or recreation.

Construction of the expansion of the Cabrillo Shallow Water Habitat site could generate temporary effects on public recreation in adjacent waters. The DEIS states that:

> *Constructing the submerged dike at this site and disposing of dredged material would cause turbidity for about 1.5 months . . . To avoid conflicts with construction equipment and impacts to their operations from turbidity, and prior to construction of the Shallow Water Habitat, both bait barges would be located temporarily to an appropriate site within the Outer Los Angeles Harbor. After construction of the Shallow Water Habitat, both barges may need to be relocated to a more permanent and appropriate location in the Outer Los Angeles Harbor. The bait barges would continue to be accessible to fishing boats during and after construction and no significant recreational impacts would result from use of this site.*
>
> *Turbidity generated by construction also could adversely affect fishing opportunities at the nearby pier since the number of fish may decline. Since the possible impact to fishing would be short term, fishing would not be precluded at the pier, and opportunities to fish from shore are available elsewhere in the project area (e.g., the Port of Long Beach and the outer beach), this impact is not considered significant. Fish would be expected to return soon after construction ceased (i.e., within days or weeks). Long-term fishing opportunities may increase in the Port of Los Angeles due to the provision of more shallow water habitat, which attracts many different fish species . . . .*
>
> *Construction activities could also temporarily disrupt recreational water sports in the vicinity of the Cabrillo Shallow Water Habitat Expansion Site. Disruption would be short term and insignificant.*

The Commission agrees that project dredging and filling will generate only temporary and minor effects on recreational boating and fishing in the vicinity of dredge and fill operations. The Commission also finds that the proposed expansion of the Cabrillo Shallow Water Habitat Area, with the environmental commitments made by the Corps of Engineers regarding circulation/ water quality modeling, monitoring, and mitigation (as discussed in Section VIIB of this report), will not cause a degradation in water quality or recreational opportunities at Cabrillo Beach. Therefore, the Commission finds that with the same considerations discussed in previous sections (i.e., subsequent review of final project design, in particular, dredge material disposal locations and design), proposed dredge and fill activities in the Port of Los Angeles are consistent with the commercial and recreational fishing and boating policies of the California Coastal Management Program (Sections 30706 and 30708 of the Coastal Act).

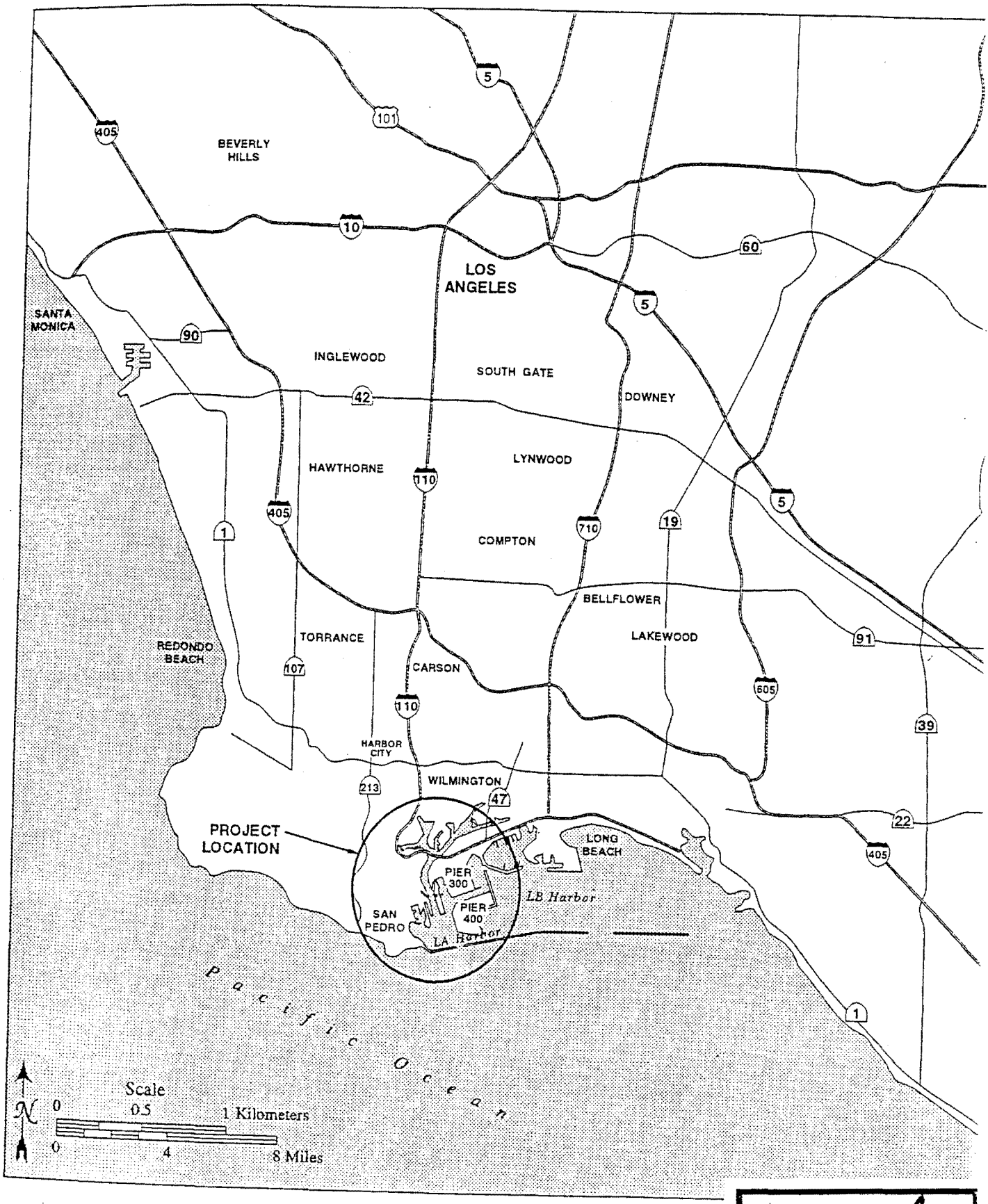


Figure ES-1. Project Location

EXHIBIT NO. 1
APPLICATION NO.
CD-50-00
California Coastal Commission

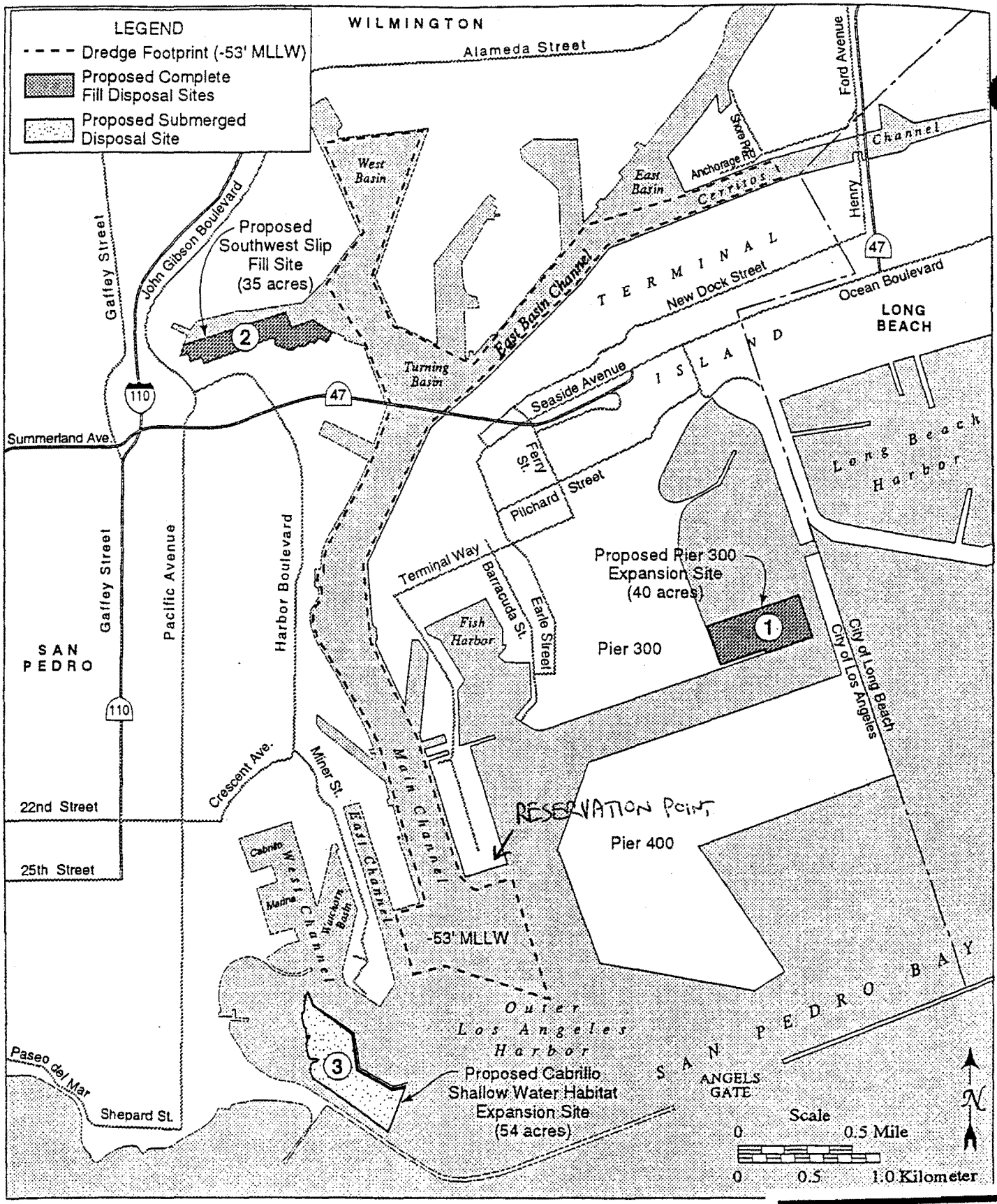


Figure 5-1. Recommended Plan (Modified NED Plan)

EXHIBIT NO. 2
APPLICATION NO.
CD-50-00
California Coastal Commission

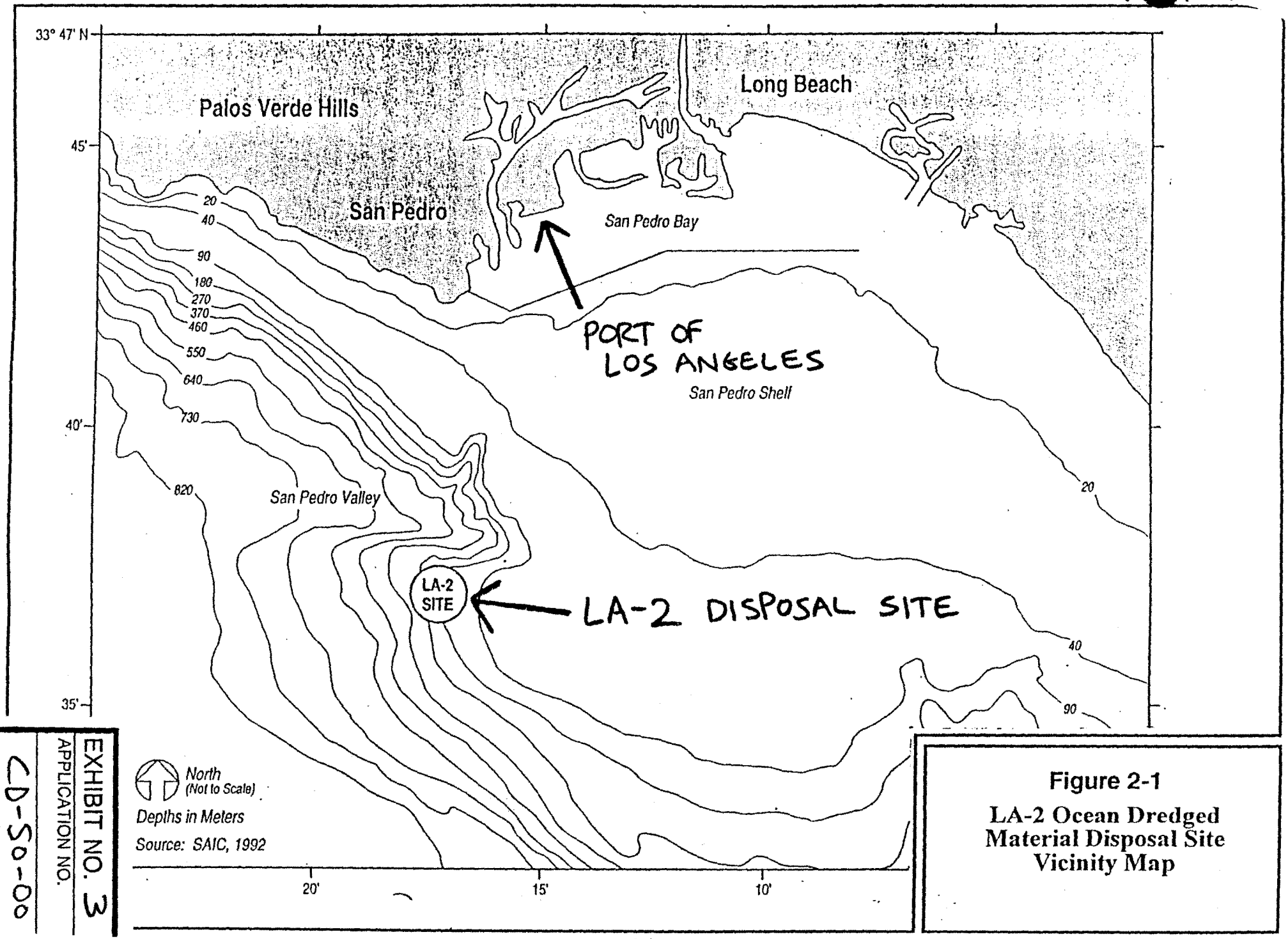
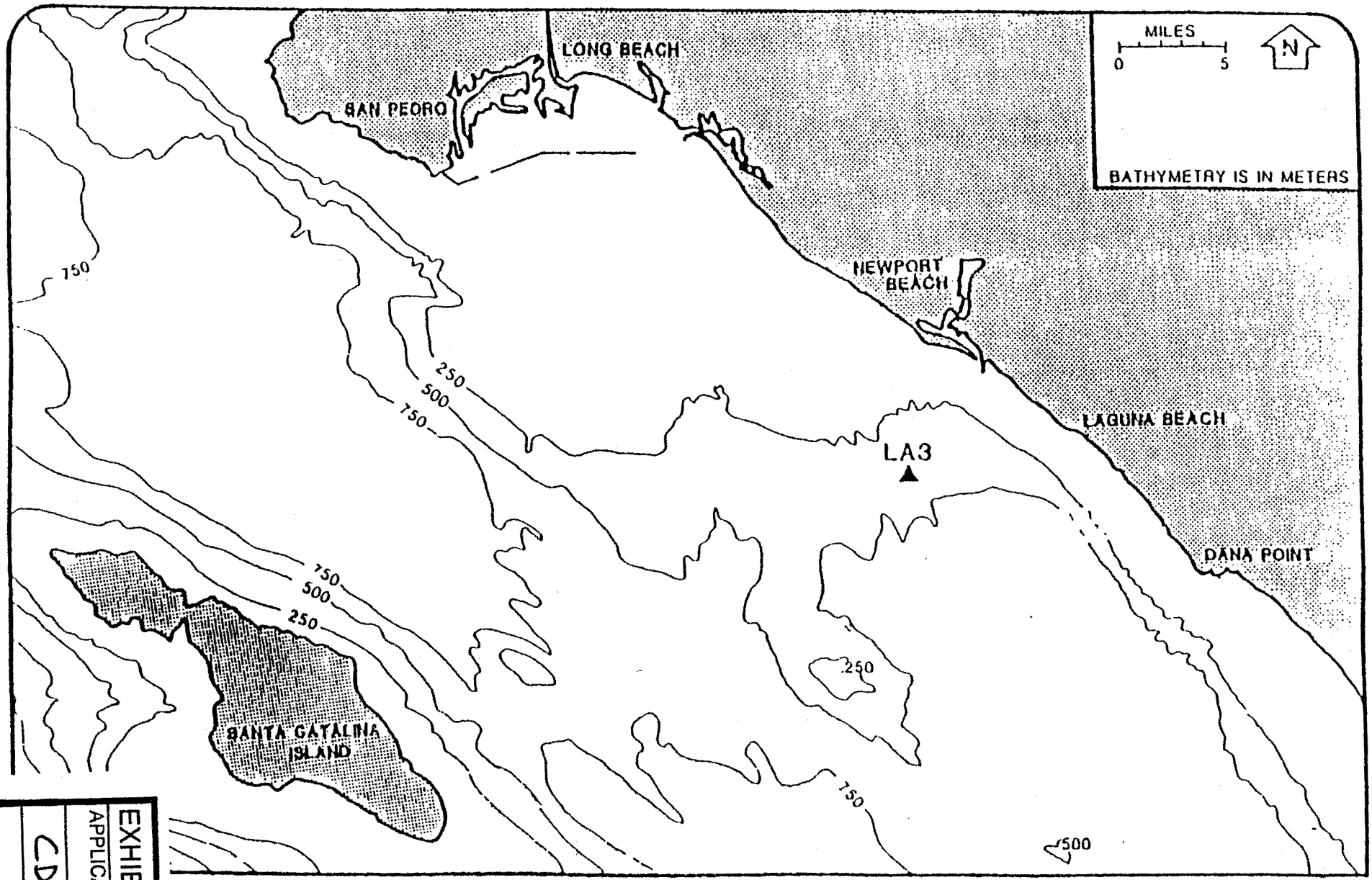


Figure 2-1

LA-2 Ocean Dredged Material Disposal Site Vicinity Map

EXHIBIT NO. 3
APPLICATION NO.
CD-50-00

California Coastal Commission



LA-3 DISPOSAL SITE LOCATION MAP

3/5

EXHIBIT NO. 4
APPLICATION NO.
CD-50-00
California Coastal Commission

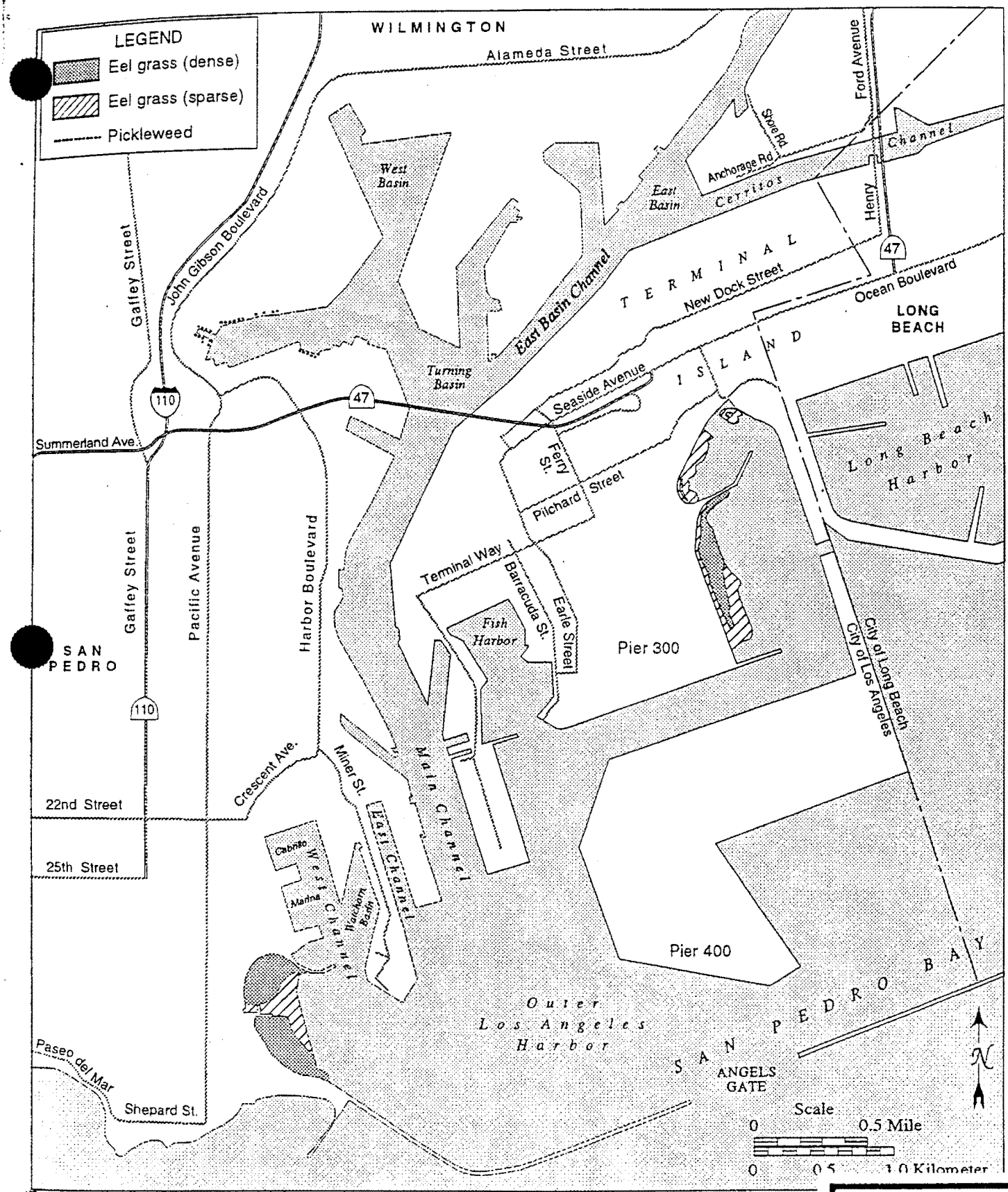
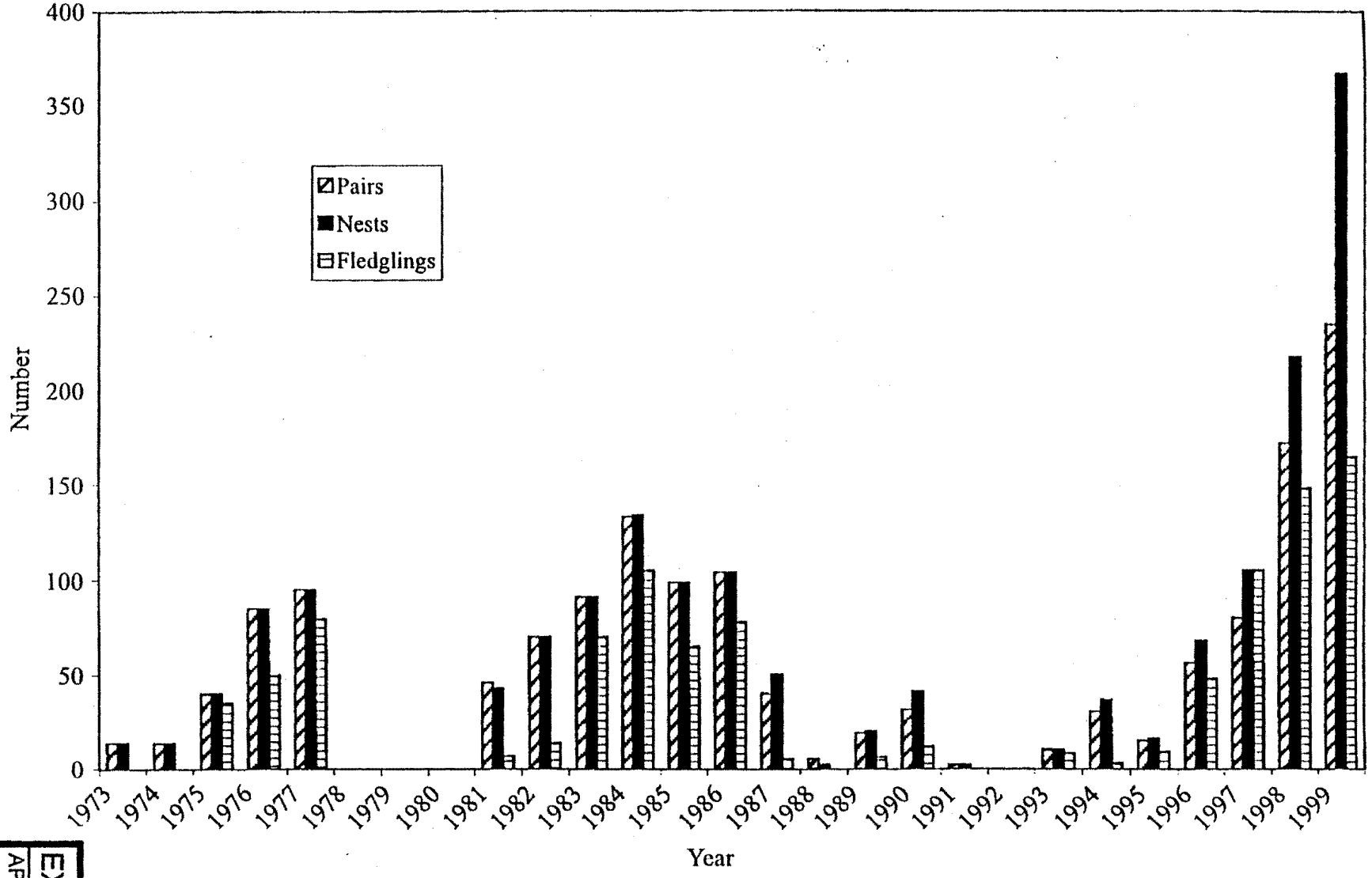


Figure 3.4-1. Locations of Eelgrass and Pickleweed

EXHIBIT NO. 5
APPLICATION NO.
CD-50-00
California Coastal Commission



2. California Least Tern Breeding at Los Angeles Harbor

Table 3.4-3. Mitigation Available for Channel Deepening Project

Mitigation Bank	*Approximate Credits Available*[1]	*Value in Deep Outer Harbor*[2]	*Value in Shallow Outer Harbor*[2,3]	*Value in Inner Harbor Slips*[2]
Bolsa Chica Bank	70	70	~47	140
Outer Harbor Bank	46	46	~31	92
Inner Harbor Bank	6	n.a.	n.a.	6
Total		116	78	238

Notes:

1. Final values to be confirmed from as-built drawings for Pier 400 and the Cabrillo Shallow Water Habitat.
2. Value of credits is 1/1 for Outer Harbor deep habitat, 1/1.5 for Outer Harbor shallow habitat, and 1/0.5 for inner harbor; n.a. = not applicable.
3. The Pier 300 fill may require expenditure of credits for degradation of the remaining water area.

Table 3.4-4. Biological Mitigation Requirements for Channel Deepening

Disposal Alternative	Depth (feet)	Disposal Sites: Pier 300 Acres	Pier 300 Value*	Pier 300 Credits	Southwest Slip Acres	Southwest Slip Value	Southwest Slip Credits	Cabrillo SWH Acres	Cabrillo SWH Value	Cabrillo SWH Credits	Total Credits	Credit Deficit**
-50'-1	50	-40	1.5	-77.5	-35	0.5	-17.5	54	0.5	27.0	-68.0	49.0
-50'-2	50	0	1.5	0.0	-35	0.5	-17.5	54	0.5	27.0	9.5	126.5
-50'-3	50	0	1.5	0.0	-35	0.5	-17.5	54	0.5	27.0	9.5	126.5
-50'-4	50	0	1.5	0.0	-35	0.5	-17.5	0	0.5	0.0	-17.5	99.5
-50'-5	50	-40	1.5	-77.5	0	0.5	0.0	54	0.5	27.0	-50.5	66.5
-50'-6	50	-80	1.5	-134.5	0	0.5	0.0	54	0.5	27.0	-107.5	9.5
-50'-7	50	na	1.5	na	na	0.5	na	na	0.5	na	na	na
-53'-1	53	-80	1.5	-134.5	-35	0.5	-17.5	54	0.5	27.0	-125.0	-8.0
-53'-2[a]	55	-40	1.5	-77.5	-35	0.5	-17.5	54	0.5	27.0	-68.0	49.0
-53'-3	53	0	1.5	0.0	-35	0.5	-17.5	54	0.5	27.0	9.5	126.5
-53'-4	53	0	1.5	0.0	-35	0.5	-17.5	0	0.5	0.0	-17.5	99.5
-53'-5	53	-80	1.5	-134.5	0	0.5	0.0	54	0.5	27.0	-107.5	9.5
-53'-6	53	-40	1.5	-77.5	0	0.5	0.0	0	0.5	0.0	-77.5	39.5
-53'-7[a]	53	0	1.5	0.0	-35	0.5	-17.5	0	0.5	0.0	-17.5	99.5
-53'-8	53	0	1.5	0.0	-75	0.5	-37.5	0	0.5	0.0	-37.5	79.5
-55'-1	55	-80	1.5	-134.5	-35	0.5	-17.5	54	0.5	27.0	-125.0	-8.0
-55'-2	55	-40	1.5	-77.5	-35	0.5	-17.5	54	0.5	27.0	-68.0	49.0
-55'-3	55	0	1.5	0.0	-35	0.5	-17.5	54	0.5	27.0	9.5	126.5
-55'-4	55	0	1.5	0.0	-35	0.5	-17.5	0	0.5	0.0	-17.5	99.5
-55'-5	55	-80	1.5	-134.5	0	0.5	0.0	54	0.5	27.0	-107.5	9.5
-55'-6	55	-40	1.5	-77.5	0	0.5	0.0	0	0.5	0.0	-77.5	39.5
-55'-7	55	0	1.5	0.0	-75	0.5	-37.5	54	0.5	27.0	-10.5	106.5

Notes: * For a 40-acre fill, the value is 1.5 of water area lost plus a up to a 5% degradation of the remaining shallow water (~233 acres). For an 80-acre fill, the value of 1.5 and 5% degradation of remaining shallow water area (~193 acres) would need to be reviewed by resource agencies prior to permit issuance or construction. Value of 1.5 assumes the Pier 400 access corridor is open. The value would be 1.125 with it closed (LAHD 1999).

** Based on a projected balance of 116 credits in the Port's mitigation banks (Bolsa = 70; Outer Harbor = 46).

a. Alternative -53'-2 is the Modified NED Plan and the Preferred Alternative. Alternative -53'-7 is the NED Plan.

PROPOSED PROJECT

Mitigation Measures

The following measures are adapted from and supplement measures approved for the Deep Draft Navigation Improvement Project. New measures are added as appropriate.

General Marine Resources

BIO-1 The LAHD shall provide off-site or on-site compensation for loss of general marine resources including approximately 40 or 80 acres of shallow water Outer Harbor habitat and/or 35 or 75 acres of inner harbor habitat in excess of the mitigation credits available in existing mitigation banks. Neither the LAHD nor the USACE shall begin construction of any fill prior to providing mitigation acceptable to the resource agencies (USFWS, NMFS, CDFG), as described herein, adequate to compensate for marine resource impacts associated with fill construction. Implementation of mitigation measures shall occur prior to or concurrent with any construction of the proposed project in Los Angeles Harbor.

a. The LAHD shall apply credits available in existing mitigation banks to compensate for loss of fish and wildlife habitat due to construction of fill at the Southwest Slip Site and Pier 300 Expansion Site.

b. The LAHD shall continue to pursue implementation of wetlands restoration projects at: (i) Bolsa Chica Future Full Tidal, (ii) Ballona Wetlands Parcel A/C, (iii) Santa Ana River Mouth, or (iv) Ormond Beach to make up any mitigation shortfall after exhausting existing mitigation banks.

c. If these wetlands are determined to be infeasible or in aggregate do not provide adequate mitigation above that required for the approved project, then other coastal wetlands shall be considered/ substituted in the Southern California Bight, including but not limited to Huntington Beach Wetlands, Tijuana River, San Elijo Lagoon, Mugu Lagoon, Buena Vista Lagoon or others. Such mitigation, including acquisition of lands and interests, shall be undertaken before or concurrent with any construction of any portion of the project not otherwise adequately mitigated. These opportunities identified above will be established through Memoranda of Agreements (MOAs) with the concerned resource agencies taking into account provisions identified in "d" below.

d. Should no feasible coastal wetlands restoration projects identified above be available at the time of Port Master Plan Amendment certification or Department of Army Permit (if applicable) to the Port, then the USFWS, NMFS, CDFG may allow the Port to implement an alternative mitigation measure, such as an Artificial Reef Project(s) in the Los Angeles coastal area under the provisions specified below:

- *Artificial Reefs Research.* Upon signature by the appropriate parties to an MOA, the LAHD shall participate in developing an artificial reef program to continue the work previously compiled in conjunction with the Port of Long Beach and NMFS. The purpose of this research is to help confirm the habitat value/ productivity of artificial reefs and their value as mitigation for Port fills. The design (including size) and monitoring program shall be in conformance with agency requirements. The LAHD will receive credit for construction of the reef at a mutually agreeable ratio. Following completion of the project the value of the reef would be recalculated in accordance with the established MOA.

- *Future Artificial Reef Implementation Program.* If, based on the studies identified above or other information that may come available in the future, the USFWS, NMFS and CDFG determine reefs are suitable mitigation, and if wetlands are not available or it is determined that reef construction in conjunction with a coastal wetlands restoration program is appropriate, then the LAHD shall implement an artificial reef program. This

program will be established through MOAs with the resource agencies taking into account provisions identified below.

This program shall include construction of one or more quarry rock reefs or other suitable materials at an initial tradeoff ratio to be determined by the signatories to a prerequisite reef MOA based on data available at the time. Location of reef placement would be limited in the north at Pt. Dume and in the south at Dana Point. Priority areas for siting of artificial reefs shall be in Santa Monica Bay, off the Palos Verdes Peninsula, and south of the Los Angeles Harbors in the "Huntington Flats" area.

e. The LAHD shall establish new or modify existing MOAs to be submitted for approval by the California Coastal Commission and Board of Harbor Commissioners prior to or concurrent with the issuance of an Department of Army Permit by the USACE, Port Master Plan Amendment certification, Coastal Development Permit, or publication of bids for construction of any fill by the USACE or LAHD beyond the amount present in existing mitigation banks or created through project implementation. Such MOAs, together with other mitigation measures shall result in implementation of mitigation projects to compensate for all marine resource impacts of the proposed project. The MOAs shall include, at a minimum, the following:

- Signatures by representatives of the LAHD, USFWS, NMFS and CDFG and other parties as appropriate.
- A completed evaluation of the habitat values of the project impact site before and after the project and a completed evaluation of probable habitat values before and after implementation of the mitigation project(s). These values will be used to determine the appropriate relationship of acres of habitat filled in the Port.
- A plan for the proposed mitigation with sufficient acreage either alone or in concert with other wetlands restoration projects to provide compensation for proposed project impacts.
- Provisions for the monitoring and long-term maintenance of habitat values at the mitigation site(s).
- Provision that any lands upon which mitigation for LAHD/USACE projects is to occur must be dedicated to ensure management of fish and wildlife values in perpetuity by an entity acceptable to USFWS, NMFS, and CDFG, prior to release of any credits to the LAHD/USACE.
- Commitments to initiate the mitigation work prior to or concurrent with initiation of any proposed construction activity resulting in permanent loss of fish and wildlife habitat (i.e. construction of new land).
- Provision that excess credits may be used by the LAHD for future harbor fills or sold to other Port authorities in Southern California or other approved coastal, water-dependent uses, for compensation of impacts to marine resources. These credits may not be used by other parties for any developments occurring in any federal jurisdictional wetlands.
- Provision that the appropriate CEQA and NEPA analyses and documentation be executed for the mitigation project(s).

BIO-2 Eelgrass in the Pier 300 Shallow Water Habitat lost due to construction of the Pier 300 Expansion Site shall be replaced within the harbor in accordance with the NMFS guidance document. Locations identified for relocation include excavation at the Pier 300 Shallow Water Habitat accreted area, or creating appropriate depths through deposit of dredge or other acceptable material along the margins of any new land created through the Pier 300 Expansion, or in the Cabrillo Beach area. Material should be coarse-grained, as available.

EX. 9 CONT.

BIO-3 Pickleweed in areas of the Southwest Slip to be filled shall be salvaged prior to filling and replanted in suitable habitat in the harbor or off site.

Endangered Species Measures

BIO-4 The construction of new fill in the Pier 300 Shallow Water Habitat shall be designed, to the extent possible, taking into account results of modeling to determine water quality in the Seaplane Lagoon and in the remaining Pier 300 Shallow Water Habitat.

BIO-5 For the purposes of maintaining shallow water for least tern foraging, the LAHD shall replace up to the 80-acre loss of shallow water at the Pier 300 Expansion Site with 80 acres of shallow water created/available at the Cabrillo Shallow Water Habitat through provisions of the Port of Los Angeles Outer Harbor Mitigation Bank Agreement and/or this project. Construction of shallow water habitat as replacement feeding areas for the least tern shall be concluded prior to the least tern nesting season in which the habitat loss occurs and shall be capped with sand material.

BIO-6 Unless specifically allowed by the CDFG and USFWS, the LAHD/USACE shall not allow turbidity from dredge and fill activities to extend into shallow water during the April-to-September breeding season of the California least tern. This requirement shall be monitored as provided for in Measure BIO-8 below and shall be based on visually observed differences between ambient surface water conditions and any dredging turbidity plume.

BIO-7 Unless approved otherwise by the CDFG and USFWS, the LAHD/USACE shall ensure that no impact pile driving shall be allowed in the Pier 300 Shallow Water Habitat during the April-to-September breeding season of the California least tern.

BIO-8 The LAHD/USACE shall provide a
fied least tern biologist, acceptable
USFWS and CDFG and approv
USACE, to monitor and manage th
tern colony during the nesting s
This program shall be carried out fo
one year following construction of t
element of the Port of Los Angeles
nel Deepening Project. The biologis
coordinate with the agencies pursu
the existing least tern MOA and shall

a. Monitor nesting and fledgling s
of the least tern colony and provide
nual report in the format provided in
ous years.

b. Provide an education progra
construction crews regarding the ide
the least tern and their nests, restric
eas and activities, actions to be ta
least terns are found outside the desi
least tern nesting sites, and any othe
nent requirements.

c. Assist the USFWS and CD
predator control, as required, prior
during the least tern nesting season
the construction period.

d. Visually monitor and report
dredging contractor or LAHD/
contract manager and CDFG/USF
turbidity from project dredging wh
ters the shallow water habitat are
east of Pier 300.

BIO-9 If California least tern or other p
species nests are found outside th
nated nesting sites during cons
then all work in the immediate a
be halted, and the least tern biolo
be notified immediately. An ap
buffer zone around the nest(s) ar
tion shall be specified by the bi
coordination with CDFG and USI

BIO-10 The LAHD shall investigate th
of all or a portion of the exist
dike groin in the Seaplane Lag
this removal not occur as a res

lated project, the Pier 400 Container Terminal Project. The value of this removal shall be documented in water quality modeling studies with results to be submitted to the concerned resource agencies.

-11 No construction staging area shall be located within 200 feet of the identified least tern site during the April-to-September least tern nesting season.

3.4.8 *Significant Unavoidable Adverse Impacts*

No unavoidable significant impacts would occur.

EX.9 CONT.

3.4.9 Mitigation Monitoring Program

Potentially Significant Adverse Impacts	*Mitigation Measures*	*Significance After Mitigation*	*Mitigation Program Responsibility/ Report Recipient*	*Frequency*
General Marine Resources				
Placement of dredge material would result in a loss of 40 or 80 acres of soft bottom and water-column habitat in the Pier 300 Expansion Site and 35 or 75 acres in the Southwest Slip Fill Site.	BIO-1 Compensate for loss of marine resources at Pier 300 Expansion Site and Southwest Slip through use of existing or new mitigation banks.	Not significant	LAHD/USACE	Prior to or concurrent with project.
Loss of about 24 acres of eelgrass for 80-acre fill or 8 acres of eelgrass for 40-acre fill at Pier 300 Expansion Site.	BIO-2 Replace eelgrass lost at Pier 300 Expansion Site within the harbor in accordance with the NMFS guidance document.	Not significant	LAHD	Prior to or after fill placement.
Loss of 31.5 m^2 of pickleweed for 35-acre fill or 448.4 m^2 of pickleweed for 75-acre fill at Southwest Slip Fill Site.	BIO-3 Pickleweed lost at Southwest Slip shall be salvaged and replanted in the harbor or off site.	Not significant	LAHD	Prior to fill placement.
Endangered Species				
Pier 300 Expansion Site fill could alter water circulation and water quality.	BIO-4 Design Pier 300 Expansion using water quality modeling.	Not significant	LAHD/USACE	Prior to Pier 300 Expansion construction.
Pier 300 Expansion Site fill would remove 40 or 80 acres of shallow water habitat.	BIO-5 Replace shallow water lost at Pier 300 Expansion Site within harbor at 1:1.	Not significant	LAHD	Prior to Pier 300 Expansion construction.
Placement of dredge material in Pier 300 Expansion Site would cause short-term turbidity.	BIO-6 Prohibit turbidity from dredge and fill activities to extend into shallow water during the California least tern breeding season, unless determined otherwise by USFWS and CDFG.	Not significant	Contractor/USACE	During disposa activities at Pier 300 site.
Wharf construction at Pier 300 Expansion Site could affect least tern nesting and foraging.	BIO-7 Prohibit impact pile driving in Shallow Water Habitat during the breeding season of the California least tern unless determined otherwise by USFWS and CDFG.	Not significant	LAHD	During wharf construction.
Disposal of dredge material at sites in harbor could affect least tern foraging.	BIO-8 Provide a qualified least tern biologist to monitor and manage the least tern colony during the nesting season.	Not significant	LAHD	During dispos activities in harbor.

Potentially Significant Adverse Impacts	*Mitigation Measures*	*Significance After Mitigation*	*Mitigation Program Responsibility/ Report Recipient*	*Frequency*
Placement of dredge material on Pier 400 upland disposal site could affect least terns nesting outside the designated sites.	BIO-9 If California least tern or other protected species nests are found outside the designated nesting sites during construction, work in the immediate area of nesting shall be halted, and the least tern biologist shall be notified immediately.	Not significant	Contractor/USACE	During disposal activities at Pier 400 Upland site.
Placement of dredge material at Pier 300 Expansion Site could alter water circulation and water quality.	BIO-10 Model the removal of all or a portion of the existing groin in the Seaplane Lagoon and remove if modeling shows benefit to water quality and if not previously removed.	Not significant	LAHD/USACE	Prior to disposal activities at the site.
Placement of dredge material on Pier 400 Upland disposal site could affect least tern nesting.	BIO-11 No construction staging area shall be located within 200 feet of the designated least tern site during the least tern nesting season.	Not significant	LAHD	During placement of dredge material on Pier 400 Upland site.

EX.10 CONT.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
2730 Loker Avenue West
Carlsbad, California 92008

MAY 15 2000

Mr. Robert Koplin
Chief, Planning Division
Corps of Engineers, Los Angeles Dist.
P.O. Box 532711
Los Angeles, California
90053-2325

Attn: Larry Smith, Environmental Resources Branch

Re: Los Angeles Harbor Channel Deepening Project

Dear Mr. Koplin:

This letter responds to your letter, dated April 17, 2000, on the referenced subject. Your letter indicates that the subject project and its draft supplemental Environmental Impact Statement (dSEIS, April 2000) supplements the Deep Draft Navigation Improvements Project EIS completed in 1992. Your letter seeks our concurrence with your view that the subject supplemental project would not adversely affect listed species and Formal Consultation, pursuant to section 7 of the Endangered Species Act, is not warranted.

The currently proposed supplemental project alternative (53-2) would deepen the Los Angeles Harbor main channel to -53' MLLW, generating about 6.6 million cubic yards (mcy) of dredge spoil. About 1.5 mcy would be used to construct a new 40-acre landfill next to Pier 300, within an existing shallow water area; 1.7 mcy would be used to construct a 35-acre landfill along the Southwest Slip; 1.0 mcy would be used to expand the Cabrillo Shallow Water Habitat by 54 acres; and 2.4 mcy would be disposed of at an approved offshore deepwater disposal site.

We had produced a Biological Opinion (BO), for the Deep Draft Navigation Improvements Project in 1992 (1-6-92-F-25, September 24, 1992), addressing potential impacts to the California least tern (*Sterna antillarum browni*) and the California brown pelican (*Pelecanus occidentalis californicus*). Phases 1 and 2 of that project are nearly completed. The least tern, in particular, has been very well served by the actions of the local sponsor, Port of Los Angeles, who has acted in compliance with the nest site management agreement, nest site monitoring, essential foraging area mitigation and protection, all requirements of the 1992 EIS and BO.

We completed a Planning Aid Report in August of 1999, and a draft Fish and Wildlife Coordination Act Report (FWCAR) in January 2000, for the subject supplemental project and expect to complete a Final FWCAR very soon. As your letter confirms, we have been in discussions, that is, informal consultation, with the Corps of Engineers and the local sponsor, the Port of Los Angeles since last year. By mutual design, the dSEIS includes agreed upon protection measures for the California least tern and acts as a Biological Assessment, as well.

The project description components that would assure that the listed species, particularly the least tern, would not be adversely affected are listed on pages 3.4-20 through 23 of the dSEIS. In general, those elements include: protection and management of a designated nesting area pursuant to a written agreement, through construction timing and monitoring protection of specifically designated essential shallow water foraging areas from degradation during construction, and offsetting, acre-for-acre and near the nesting site, of any loss of shallow water foraging area in advance of loss.

No other listed species may be affected by the proposed channel deepening and landfill construction project. Therefore, provided the project is implemented as described in the dSEIS, we concur that no listed species would be adversely affected by the project and Formal Consultation, pursuant to section 7 of the Endangered Species Act is not warranted. Our representative remains Mr. Jack Fancher who may be reached at (760) 431-9440, email jack_fancher@fws.gov.

Sincerely,

Andrew R. Yuen

Andrew R. Yuen
Deputy Field Supervisor

1-6-00-I-50

cc: NMFS, Long Beach (Bob Hoffman)
CDFG, San Diego (Marilyn Fluharty)
✓CCC, San Francisco (Jim Raives)
Port of LA, San Pedro (Ralph Appy)

EX. 11 CONT.

SIMON

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

MAY - 5 2000

F/SWR4:RSH

W 14a

Mr. Donald W. Rice
Director of Environmental Management
Port of Los Angeles
425 S. Pacos Verde Street
San Pedro, California 90733-0151

Dear Mr. Rice:

Thank you for the opportunity to review the Draft Supplemental Environmental Impact Statement/Supplemental Environmental Impact Report (DSEIS/DSEIR) for the Port of Los Angeles Channel Deepening Project.

The recommended plan consists of deepening the channels and turning basins to a depth of -53 ft. MLLW. Disposal of dredged material would occur at the Southwest Slip to create 35 acres of fill, at the Pier 300 Expansion Site to create 40 acres of fill, at the Cabrillo Shallow Water Habitat to create 54 acres of shallow water habitat, and approximately 2.4 million cubic yards at the LA2 or LA3 ocean disposal site.

This letter is provided in accordance with the Fish and Wildlife Coordination Act and PL 94-265 - the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).

The proposed project is located in an area identified as Essential Fish Habitat (EFH) for fish species federally managed under the Pacific Groundfish Fishery Management Plan and Coastal Pelagic Fishery Management Plan. Based on our review of the information contained in the DSEIS/DSEIR, NMFS believes that the proposed project, including implementation of the described mitigation, would not result in an adverse impact on EFH and other NMFS-trust fishery resources.

In view of the above, we do not believe further EFH Conservation Recommendations are necessary. Please be advised that regulations (50 CFR Sections 600.920) to implement the EFH provisions of the MSFCMA require the Federal action agency, in

this case the Corps of Engineers, to provide a written response to this letter within 30 days of its receipt and at least 10 days prior to final approval of the action. A preliminary response is acceptable if final action cannot be completed within 30 days. Their final response must include a description of measures to be required to avoid, mitigate, or offset the adverse impacts of the activity. If their response is inconsistent with our EFH Conservation Recommendations, they must provide an explanation of the reasons for not implementing those recommendations.

Thank you for your consideration of our recommendations. Should you have any questions, please contact Mr. Robert Hoffman at 562-980-4043 or via email at: bob.hoffman@noaa.gov.

Sincerely,

for J. J. Slawson

Rodney R. McInnis
Acting Regional Administrator

cc:
USFWS - Carlsbad (Jack Fancher)
CDFG - San Diego (Marilyn Fluharty)
POLA - Ralph Appy

STATE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, Governor

DEPARTMENT OF FISH AND GAME
MARINE REGION
20 LOWER RAGSDALE DRIVE, SUITE 100
MONTEREY, CA 93940
(831) 649-2870

W 14a

May 16, 2000

Mr. Donald W. Rice
Director of Environmental Management
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, California 90733-0151

Dear Mr. Rice:

Department of Fish and Game (Department) personnel have reviewed the Draft Supplemental Environmental Impact Statement/Report (DEIS/DEIR) for the Port of Los Angeles Channel Deepening Project, SCH No. 990809-102. The proposed project would deepen the Inner Harbor navigation channels of the Port of Los Angeles to accommodate modern container vessels and would maximize the beneficial uses of dredge material. Approximately 3.9 to 8.5 million cubic yards of material would be dredged from the Main Channel, West Basin, East Channel, East Basin, and Cerritos Channel. Dredge depths of -50, -53, and -55 feet Mean Lower Low Water (MLLW) are being considered. The amount of dredge material would depend on the approved project depth. Optional disposal sites include the Pier 300 Expansion Site, Pier 400 Submerged Storage Site, Pier 400 Upland Site, Southwest Slip Fill Site, Cabrillo Shallow Water Habitat Expansion Site, an approved upland disposal site, and ocean disposal at the federally approved LA-2 and LA-3 sites. The recommended plan alternative would deepen the channels and turning basins to a depth of -53 feet MLLW with a 2-foot over-dredge. Dredge material would be used to construct a 40-acre landfill at Pier 300 and a 35-acre landfill and confined disposal facility in the Southwest Slip. Additionally, 54 acres of dredge material would be placed in the Cabrillo Shallow Water Habitat Expansion Site.

The DEIS/DEIR is adequate in its portrayal of impacts to fish and wildlife resources and habitats associated with the preferred project and alternatives. Therefore, the Department does not object to the adoption of the recommended plan alternative provided the described mitigation measures are implemented.

As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion, please contact Ms. Marilyn

EXHIBIT NO. 1
APPLICATION NO.
CD-50-00

Fluharty, Environmental Specialist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, telephone (858) 467-4231.

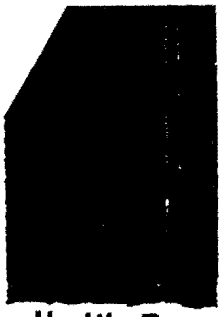
Sincerely,

Robert N. Tasto, Supervisor
Project Review and Water Quality Program
Marine Region

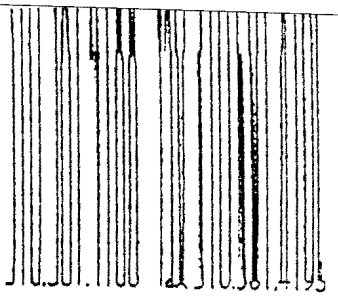
cc: Ms. Marilyn Fluharty
Department of Fish and Game
San Diego, California

Mr. Robert Hoffman
National Marine Fisheries Service
Long Beach, California

Mr. Jack Fancher
U.S. Fish and Wildlife Service
Carlsbad, California



Heal the Bay



htb@healthebay.org
www.healthebay.org

June 8, 2000

Chairwoman Sara Wan and Commissioners
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

RE: Consistency Determination No. CD-50-00: Port of Los Angeles's Channel Deepening Project – Phase I

Dear Chairwoman Wan and Commissioners:

Heal the Bay is a nonprofit environmental organization with over 10,000 members dedicated to making the coastal waters of Southern California safe and healthy for people and marine life. We have advocated for cleaner waters in San Pedro Bay and the Port of Los Angeles for over ten years. Currently, Heal the Bay actively participates on the Contaminated Sediments Task Force (CSTF), working closely with the various regulatory agencies, resources agencies and the Ports to develop environmentally-sound management practices for dredged materials. In addition, we continue to advocate for protection of the California least tern and other coastal endangered species.

Heal the Bay has significant concerns regarding the draft EIR/EIS for the Port of LA's Channel Deepening Project. We submitted our concerns and comments to the Port on May 22, 2000. Since we have not yet received a response to our comments, many of the concerns we have regarding the CCC staff's consistency determination are the same or similar to the comments submitted on the draft EIS/EIR.

Heal the Bay is once again disappointed that the Coastal Commission was asked to make a consistency determination on a project that has not completed CEQA/NEPA review and has not been reviewed by the Los Angeles Regional Contaminated Sediments Task Force (CSTF). As you may recall, the task force was created after very similar circumstances involving both Port of LA and Port of Long Beach. Since the CSTF was created, all major projects except this one have been reviewed by at least one CSTF committee. Heal the Bay requests for the Coastal Commission to deny the consistency determination until such time as the EIS/EIR is finalized and the project has been reviewed by the CSTF.

Heal the Bay is not opposed to a channeling deepening project at the Port of LA, however, we have serious concerns about the use of dredged materials to fill in more of San Pedro Bay. Landfill construction results in permanent destruction of nearshore marine biological resources. We don't believe the preferred project alternative chosen by the Port which includes expansion of the Cabrillo Shallow Water Habitat, landfill in the Southwest Slip, and expansion of Pier 300, is the most environmentally-sound project

alternative. Specifically, Heal the Bay does not believe the proposed landfills meet the requirements of Section 30706 (b) of the Coastal Act. This section provides that "The nature, location, and extent of any fill, *including the disposal of dredge spoils within an area designated for fill*, shall *minimize* harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reduction of the volume, surface area, or circulation of water." Our specific concerns are summarized below[1].

1. **The expansion of Pier 300 will result in the permanent destruction of an estimated 20% of the preferred foraging habitat for the California least tern[2]. The expansion of the Cabrillo Shallow Water Habitat (SWH) may not mitigate this loss.**

   The least tern monitoring data summarized in the EIR clearly indicates foraging habitat at the Cabrillo SWH is not used by least terns at nearly the same rate they use the Pier 300 SWH. According to the draft EIR, foraging studies have been conducted in the Port since the early 1980s. The Cabrillo SWH has been used to varying degrees for foraging, but the least tern has preferred areas around Pier 400, and particularly Pier 300. Over the past three years, foraging has greatly increased in the Pier 300 SWH. In 1999, the EIR states least tern foraging was again "very high" in the Pier 300 SWH, particularly in the vicinity immediately adjacent to the pier. During this same time period, the number of least tern pairs and nests dramatically increased in the Port, rising more than 4-fold from 1996 to 1999.

   Mitigation for the destroyed least tern foraging habitat may not be possible through the construction of more Cabrillo SWH because the least terns currently do not prefer the Cabrillo SWH for foraging. The EIR states the least tern's preference for Pier 300 SWH is probably due to an increase in prey in the Pier 300 area and Pier 300's proximity to the preferred nesting area on Pier 400. (According to the EIR, virtually all the least tern breeding and nesting occurs on Pier 400.) Recently, the least tern data has shown great improvements in the least tern population at the Port. In fact, the Port of LA is critical habitat to the least tern population in LA and Orange County, producing 19% of the total number of least tern fledging and the highest number of fledglings per pair in 1998. We are concerned destruction and disruption of the preferred foraging area at the Pier 300 SWH may result in a loss of the gains made in the number of least tern pairs and nests in the Port over the past three years.

   Directly related to impacts on the least tern, the Port's EIR did not include sufficient information on the water circulation impacts caused by the proposed Pier 300 expansion. The 40-acre expansion would result in a 14.5% loss of SWH. This loss could be compounded by potential reductions in water circulation and water quality in

[1] Heal the Bay understands the CCC is providing a "phased review" of this project and the issues regarding dredging operations, landfilling operations, and contaminated sediment testing and placement in landfills will be addressed in the second phase of the review. Therefore, we did not include in this letter our concerns regarding how the dredging and landfilling operations will be conducted.

[2] The EIR assumes an additional 5% loss of SWH due to poor water circulation. Thus, 20% of preferred least tern habitat could be permanently lost due to the 40-acre Pier 300 expansion proposed.

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the remaining SWH, which, in turn, could impact the density of least tern prey in the preferred foraging area. The CCC staff report states the fill would alter the circulation in the remaining SWH which could cause a degradation of the remaining habitat, but how this degradation would affect least tern foraging was not discussed. The Port's EIR briefly states modeling of water circulation and water quality had been conducted, but the results as they relate to least tern foraging were not discussed.

2. **The potential increase in risk to public health at Cabrillo Beach due to the reduction in water circulation that may be caused by the expansion of the Cabrillo SWH was not considered in the staff's consistency determination or the Port's EIR.**

   The Cabrillo beach is a popular swimming area that routinely has the worst microbiological water quality in LA County and consistently receives an 'F' on Heal the Bay's Beach Report Card during both dry and wet weather. In fact, State Health Department water contact standards are exceeded over 60% of the time during dry weather. This beach is listed on the SWRCB's 303(d) list as impaired for recreational water contact due to high fecal bacteria densities. Poor water circulation in the beach area contributes to the high bacteria densities measured at the shoreline of this beach. The proposed expansion of the Cabrillo SWH will likely further reduce water circulation at this beach, and could cause even higher bacteria densities. Higher bacteria densities indicate higher health risk associated with swimming at the beach.

3. **Creating a 75-acre landfill at the Southwest Slip is the fill alternative that minimizes harmful effects to coastal resources, as required by Section 30706 of the California Coastal Act.**

   If the Port must fill portions of San Pedro Bay, why can't a larger, 75-acre landfill at the Southwest Slip be constructed in lieu of the Pier 300 expansion landfill and the expansion of the Cabrillo SWH? Based on the impact analysis provided in the draft EIR, this alternative is the most environmentally-sound *landfill* alternative. The EIR/EIS does not even designate this alternative as the environmentally superior alternative that still achieves the Port's goals.

   Filling in all of the Southwest Slip with a 75-acre landfill was an alternative the Port briefly proposed in the EIR, but did not fully analyze. The Southwest Slip currently provides far less biological resources compared to that of the Pier 300 expansion area. The 40-acre Pier 300 expansion would result in destruction of 40 acres of SWH, 8.1 acres of eelgrass, and approximately 20% of the preferred least tern foraging area. In addition, the Pier 300 SWH has the highest diversity of benthic invertebrates in the Port area (draft EIR). Not only would the Pier 300 expansion destroy these biological resources, it will also impact water circulation in the remaining SWH in the Pier 300 area.

   Although filling the Southwest Slip would result in loss of soft-bottom habitat, water column habitat and limited pickleweed stands, the loss would be less significant than

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that caused by the Pier 300 expansion. Water column species richness and diversity increases along a gradient from the inner harbor to the outer harbor. Thus, the Southwest Slip supports fewer and less dense populations of water column species relative to Pier 300. In addition, the Southwest Slip supports a relatively low density of benthic infauna communities and the sparse pickleweed stands supported at the Slip can be transplanted to another area. Finally, and perhaps most importantly, the Southwest Slip does not support least tern foraging.

The Port introduces the idea of the 75-acre Southwest Slip landfill, but then provides unclear and differing reasons why this alternative was not fully considered. The EIR first indicated the 75-acre landfill could accept up to 6.0 mcy of material, then later, stated only 1.7 mcy of dredged material from the channel deepening could be accepted by the landfill. The EIR provided no explanation for why a much larger portion of the 6.0 mcy could not be dredged material from the deepening project. The EIR indicates a significant fraction of the dredged material will be coarse sand, which is the preferred material for landfills. In addition, as we've seen in the Port of Long Beaches recent slip fill project, a significant fraction of landfill material can be fine-grained material, which is placed in the bottom of the landfill. Based on the data in the EIR, it is feasible for a substantial portion of the total 6.6 mcy of dredged material could be disposed of as fill material in the Southwest Slip.

The EIR also stated the 75-acre landfill could not be completed at this time because it requires the relocation of the GATX facility. Why can't the GATX facility be relocated for the deepening project, a project that has an estimated average National Economic Development benefit of $42,334,000 per year with a benefit to cost ratio of 4.72?[3] Is the Port imposing an artificial deadline on the channel deepening project at the expense of the biological resources in the harbor? After all, many of the deep-draft ships this project will accommodate are currently in the planning phase only. Is it feasible to take the time to relocate GATX?

Clearly, the long-term, permanent impacts to biological resources in the Port will be significantly less if the 75-acre Southwest Slip landfill is the *only* landfill constructed during this project.

Since the proposed project may permanently destroy preferred least tern foraging habitat, may degrade the water quality at Cabrillo Beach and does not include the fill alternative that minimizes the harmful effects to coastal resources, we believe the proposed project is not consistent with the California Coastal Act. Furthermore, based on the draft EIR and the CCC staff report, it is not clear that the Port has considered other alternatives that do not call for landfills in San Pedro Bay. Specifically, we have the following questions:

Has the Port considered deepening smaller portions of the Port which would reduce the amount of dredged materials generated?

[3] Feasibility Study Main Report, U.S. Army Corps of Engineers, April 2000.

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The EIR did not consider dredging smaller portions of the Port. Has the Port considered alternatives in which deep-draft vessels are serviced in limited portions of the Port? For example, why can't the project objectives be realized by servicing deep-draft vessels at only Piers 300 and 400?

Has the Port adequately pursue the alternative to use other West Coast Ports for some of the deep-draft vessels? The EIR states that improvements would be needed at other West Coast ports to handle deep-draft vessels and the resulting impacts would be similar to the impacts incurred at the Port of LA. No information to back up this assumption was provided. Given the fact that each Port has a unique combination of facilities and biological resources, it is not obvious that the impacts to biological resources and water quality would be the same if the project or a portion of the project were completed at another Port. What if the Port of LA serviced a portion of the deep-draft traffic at Piers 300 and 400 and other West Coast Ports serviced the remaining traffic?

The EIR states that improvements are *already* underway to service deep-draft boats at other West Coast Ports. If these improvements are indeed already being implemented, why should further degradation to our coastal waters be incurred at the Port of LA to provide redundant services for deep-draft vessels? Based on the information provided in the EIR, it is not clear the Port of LA's channeling deepening project must be completed at the proposed scale.

Has the Port considered disposal alternatives such as upland disposal or other types of beneficial reuse that do not result in permanent destruction of nearshore habitat?

The EIR for the project did not consider upland disposal sites for the dredged materials. Instead, upland disposal sites were considered only for contaminated sediments. What is the capacity of the Port's Anchorage Road site for accepting dredged materials? What investigation has the Port pursued to identify other upland disposal sites? Clearly, upland disposal is a feasible alternative to San Pedro Bay landfilling that could result in substantially fewer impacts to biological resources.

Has the Port considered sediment beneficial reuse aside from landfilling? With such a large amount of sediment being produced, reuse options such as concrete stabilization should be considered. The impacts to biological resources in the Port would be greatly reduced if the sediments were treated and reused instead of used as coastal landfill material, which permanently displace near-shore ocean resources. Although reuse options are more expensive then ocean disposal, this large project could benefit from economy-of-scale. In addition, a treatment and reuse facility could provide regional benefits by accepting dredged materials from other projects and from future Port of LA projects.

In summary, it appears the Port's desire for more terminal space and less expensive disposal of the dredged material has led to a project proposal that relies on landfilling

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portions of San Pedro Bay that will result in negative impacts to the coastal resources in San Pedro Bay. Although the Feasibility Study for the channel deepening project completed by the U.S. Army Corp. of Engineers concluded the alternative that maximizes economic benefit to the nation (the National Economic Development (NED) plan) is one that did not include the Pier 300 expansion, the Los Angeles Harbor Department chose a project alternative which includes the Pier 300 expansion because it would create two landfills for expanded terminal operations (draft EIR). To date, it does not appear the Port has considered project alternatives such as upland disposal of dredged materials; beneficial reuse of the dredged materials for products such as concrete; and a smaller-scale project which would generate less dredge material.

Furthermore, the location of the landfills in the proposed project may have significant negative impacts to the least tern foraging habitat and the recreational water use at Cabrillo Beach. Heal the Bay believes that if a portion of San Pedro Bay is filled in as a result of this project, the 75-acre landfill of Southwest Slip is the less environmentally-damaging, landfill alternative. The Port of Los Angeles has already filled over 500 acres of near-shore habitat in San Pedro Bay in the last decade. The proposed dredging project moves the area one step closer to the near elimination of the Los Angeles portion of San Pedro Bay at substantial and unmitigatable costs.

Sincerely,

Mitzy Taggart

Mitzy Taggart
Staff Scientist

Mark Gold

Mark Gold, D.Env.
Executive Director

EX. 14

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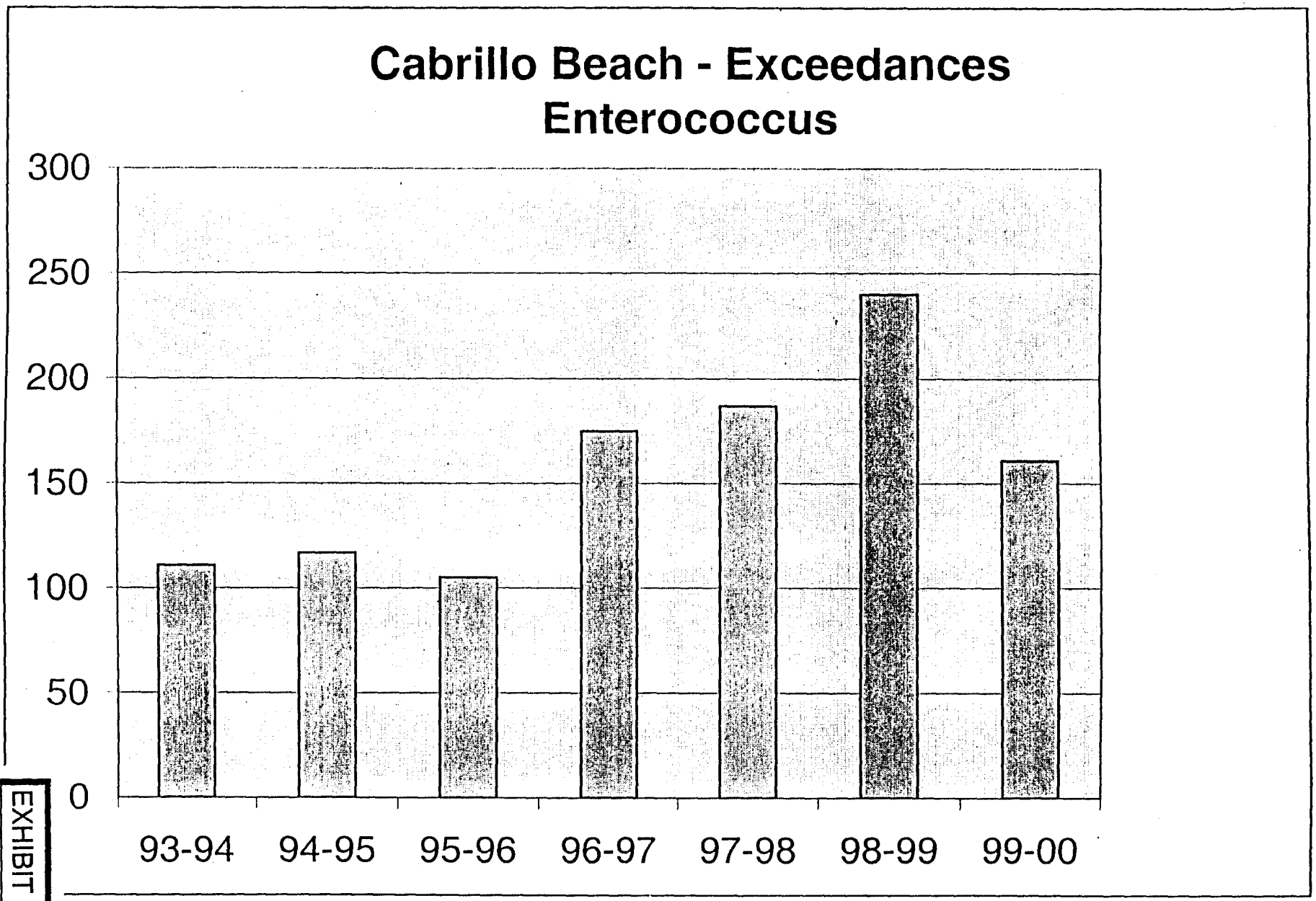

SOURCE: HEAL THE BAY

EXHIBIT NO. 1
APPLICATION NO.
CD-50-02

June 12, 2000

RECEIVED
JUN 1 2 2000
CALIFORNIA
COASTAL COMMISSION

Mr. Peter Douglas
Executive Director
California Coastal Commission
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

Dear Mr. Douglas:

SUBJECT: PORT OF LOS ANGELES CHANNEL DEEPENING PROJECT
CONSISTENCY DETERMINATION

I am writing in support of the U.S. Army Corps of Engineer's Consistency Determination for the proposed Port of Los Angeles Channel Deepening Project Feasibility Study and to provide supplemental information (attached) on the project. Coastal Commission concurrence on this Consistency Determination will allow for federal assistance to the Port aimed at accommodating international commerce in an efficient and environmentally responsible manner.

Concurrence with the Consistency Determination will provide federal assistance in the funding of important channel improvements to accommodate the efficient handling of international commerce at the Port of Los Angeles. Analysis of the world's fleet, as documented in the Corps' Feasibility Study, indicates that Inner Harbor channels at the Port are not deep enough to accommodate existing and future generation container ships. Presently, the Port's Inner Harbor channels which serve five of our seven major container terminals, are at –45 feet while some existing and planned ships will require a depth of –53 ft. Even at present, some ships coming to the Port are constrained by existing channel depths and must arrive and depart partially loaded. Recent cargo projections also show that Pacific Rim trade will continue to expand, especially with China, and there will be a need by all West Coast Ports to improve their cargo handling efficiency through improved channels and improved on-shore cargo handling facilities to accommodate international commerce. It is therefore imperative that we utilize the dredge materials removed from the channels to enhance container terminal efficiency.

The Port has a strong history of environmental sensitivity and has contributed significantly towards the restoration of coastal wetlands, towards protection of the California least tern and towards the removal of contaminated sediments from the harbor channels. All aspects of this project have been thoroughly coordinated with U.S. Fish and Wildlife Service, National Marine Fisheries Service and the California Department of Fish and Game, and we invite you to contact these agencies to confirm

EXHIBIT NO. 16
APPLICATION NO.
CD-50-00

our progressive approach to habitat protection. We are also active participants in the Contaminated Sediment Task Force (CSTF), which is co-chaired by your agency, to resolve regional contaminated sediment issues. The contaminated sediment issues associated with this project will be reviewed by the Interim Advisory Committee of the CSTF.

In summary, the Channel Deepening Project is an environmentally responsible program needed to accommodate existing and planned deep draft container ships in the world fleet and will help accommodate efficient cargo handling at the Port of Los Angeles. The Commission's concurrence on the Corps' Consistency Determination will help obtain federal assistance to the Port, and fulfill the Port's mandate to accommodate maritime commerce pursuant to Chapter 8 of the California Coastal Act.

Please distribute the attached supplemental information to the Commissioners, and feel free to call me directly at (310) 732-3440 should you have any questions regarding this information.

Sincerely,

LARRY KELLER
Executive Director

LK:RGA

Attachment

PORT OF LOS ANGELES CHANNEL DEEPENING PROJECT FACT SHEET

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1. THERE IS A JUSTIFIED NEED TO DEEPEN ALL CHANNELS TO –53 FEET AND CREATE ADDITIONAL LAND UTILIZING THE DREDGE MATERIAL.

2. A LARGE RANGE OF PROJECT ALTERNATIVES HAVE BEEN EXAMINED AND COORDINATED WITH THE PUBLIC

3. THE PROJECT WAS THOROUGHLY COORDINATED WITH THE RESOURCE AGENCIES AND WILL NOT CREATE UNMITIGATED IMPACTS OR CAUSE HARM TO THE ENDANGERED LEAST TERN

4. THE PROJECT WILL NOT RESULT IN ANY EFFECT ON THE BACTERIA LEVELS AT INNER CABRILLO BEACH

5. DREDGING OF CONTAMINATED SEDIMENT IS A BENEFICIAL ELEMENT OF THE PROJECT AND SIMILAR TO THAT RECENTLY APPROVED FOR THE PORT OF LONG BEACH PIER E PROJECT

6. CONTAMINATED SEDIMENT ISSUES WILL BE COORDINATED WITH THE INTERIM ADVISORY COMMITTEE OF THE CONTAMINATED SEDIMENT TASK FORCE

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1. **THERE IS A JUSTIFIED NEED TO DEEPEN ALL CHANNELS TO –53 FEET AND CREATE ADDITIONAL LAND UTILIZING THE DREDGE MATERIAL.**

- Dredging the main channel to 53 feet will generate millions of dollars in transportation cost savings annually and help keep costs down for U.S. consumers and exporters. The USACE estimates that the proposed project will achieve net transportation cost savings of savings of $41.9 million. As a result, exporters can compete better in foreign markets, and consumers and import manufacturers can buy inbound finished and intermediate goods at a lower price.

- The proposed main channel depth of - 53 feet is necessary to respond to current trends in shipbuilding and the existing world fleet. Major ship builders now offer standard hull designs with a design draft of 47.6 feet which requires a channel depth of – 53 ft for safety reasons and tides. In addition four steamship companies which call at various terminals at the Port have ordered vessels requiring –53 feet. A number of container ships in the Pacific fleet already require this draft and have called light-loaded at the Port of Los Angeles.

- Other world-class ports have channel depths of – 53 feet or are planning to develop them. Vancouver and Yantian (China) have channels that accommodate the new vessels. The ports of Yokohama and Kobe (Japan), Singapore and Laem Chabang (Tailand) are planning to construct channels and multiple container ship berths with water depths of 16 meters. Additionally, the Port of Long Beach is designing all of their new container wharves to allow for future depths of - 55 feet.

- Dredging the main channel to - 53 feet will allow for the creation of landfill that is needed to accommodate higher projected container cargo growth. When the California Coastal Commission approved the 585-acre Pier 400 landfill by certifying Port Master Plan amendments 12 and 17, container projections at that time totaled 11.7 million TEUs (~containers) for all of San Pedro Bay for the year 2020. The most recent cargo projections completed jointly by the Ports of Los Angeles and Long Beach in 1998 show that **each** port can expect to handle this amount of container cargo by 2020.

- The Port, in attempting to minimize its need for more land has been upgrading existing facilities to their highest possible capacities. These efficiencies include increasing existing backland areas, modifying the gates into container facilities to facilitate truck and rail access, implementing roadway improvements in the Port area to facilitate and separate road and rail access, implementing rail facilities at the Port to help move cargo in and out efficiently and implementation of the Alameda Corridor Project. Deepening of the channels is another proposed efficiency which allow larger and fewer vessels to transit the Port.

- Terminal operators can handle container cargo more efficiently with the additional landfills generated by main channel dredging. Due to the large local population,

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projected cargo will continue to flow through the port. Without additional terminal space, container-handling costs will increase, and environmental impacts associated with air emissions and traffic will increase as a result of inefficient double handling of cargo. Conservatively this could add $7-8 million annually to the cost of moving the 260,000 containers projected for the proposed landfills.

2. A LARGE RANGE OF PROJECT ALTERNATIVES HAVE BEEN EXAMINED AND COORDINATED WITH THE PUBLIC

- Environmental documentation and Feasibility Study included evaluation of four alternatives to dredging the channel, five different dredge depths and nine disposal sites combined in 21 different ways. In addition this documentation supplements the Deep Draft Navigation Project which contained a large number of project alternatives. No other alternatives were recommended for consideration during the public scoping process for this project.

- Deepening of only a portion of the Port channels to service just a few terminals would not allow the Port to realize the cargo handling efficiencies identified through the master planning previously approved in the Deep Draft Navigation Project and Master Plan Amendment Nos. 12 and 17. All seven major container terminals at the Port (including the five located in the Inner Harbor) need to realize cargo handling efficiencies that can be achieved by deepening of the Inner Harbor Channels.

- Use of other west coast container ports to handle this cargo is not feasible because these other ports will also be receiving their own share of increased cargo volumes. This alternative also does not accommodate the large load center at the Port of Los Angeles as a result of the large population in the five county area. Other container Ports (e.g. Oakland) also have valuable coastal resources that are being affected by their own improvement plans.

- Use of the dredge material to create usable materials (structural material, soil, etc.) at an upland site is not feasible and does not meet the cargo handling needs of the Port. Utilizing data presented to the Contaminated Sediment Task Force, disposal of material in this manner would increase dredge material disposal from approximately $80 to $297 million dollars without any known market for the material.

- A 75-acre fill at the Southwest Slip is not feasible at this time and would be needed in addition to the 40-acre fill adjacent to Pier 300. A larger fill at the Southwest Slip would not benefit cargo handling at the Pier 300 facility.

- The Port's upland disposal site has only limited capacity (90,000 cubic yards) which is being saved for placement of contaminated sediment from planned maintenance dredging.

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- Placement of contaminated sediment from the Channel Deepening Project into the confined disposal facility created by the 35-acre fill at the Southwest Slip is an environmental benefit and similar to a project recently approved by the Commission for the Port of Long Beach.

3. **THE PROJECT WAS THOROUGHLY COORDINATED WITH THE RESOURCE AGENCIES AND WILL NOT CREATE UNMITIGATED IMPACTS OR CAUSE HARM TO THE ENDANGERED LEAST TERN**

- The project was subject to no fewer then five coordination meeting with U.S. Fish and Wildlife Service, National Marine Fisheries Service and the California Department of Fish and Game. Letters substantiating agency concurrence with the Recommended Plan are attached.

- Loss of marine habitat is being totally mitigated through on-site creation of shallow water associated with the Cabrillo Shallow Water Habitat and on- and off-site mitigation available in mitigation banks previously approved by the Coastal Commission (e.g. Bolsa Chica and Outer Harbor Mitigation Bank). The Port has expended over $100,000 million dollars to ensure availability of off-site mitigation alone for these needed fills at the Port.

- Extensive water quality modeling of the 40-acre Pier 300 expansion area was conducted by the Corps Waterways Experiment Station in coordination with the resource agencies. No degradation of water quality was identified.

- Lost foraging habitat for the California least tern is being replaced at the Cabrillo Shallow Water Habitat within approximately one mile of the designated tern nesting site, in a manner previously approved for the Deep Draft/Pier 400 Project and Master Plan Amendments 12 and 17. Protective measures identified in that documentation, which have resulted in amazing tern nesting success during Pier 400 construction, have been adopted for this project. There is over 500 acres of shallow water available for tern foraging. Locations of tern foraging are variable from year to year In 1999 a significant amount of feeding by the least tern occurred in deep water to the East of Pier 400. This year foraging initially occurred in the Pier 300 area but now has shifted to outside the breakwater.

- A no-jeopardy opinion for the least tern has been obtained from the U.S. Fish and Wildlife Service.

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4. CONSTRUCTION OF THE NEW SHALLOW WATER HABITAT WILL NOT RESULT IN ANY EFFECT ON THE BACTERIA LEVELS AT INNER CABRILLO BEACH

- Extensive sampling at the Inner Cabrillo Beach area indicate that high levels of bacteria along the shoreline at this location, which is over one-quarter of a mile from the the new Shallow Water Habitat, are likely caused by birds which roost on the beach.

- Water quality indicators (including disolved oxygen, transparency, and biological oxygen demand (BOD)) just off shore of Cabrillo Beach have, if anything, improved with construction of the Cabrillo Shallow Water Habitat.

- Water quality and hydrodynamic specialists at the Corps' Waterways Experiment Station indicate that construction of the new shallow water will have no concentrating effect on the bacteria levels at the Inner Cabrillo Beach and may result in more water movement in the area.

5. DREDGING OF CONTAMINATED SEDIMENT IS A BENEFICIAL ELEMENT OF THE PROJECT AND SIMILAR TO THAT RECENTLY APPROVED FOR THE PORT OF LONG BEACH PIER E PROJECT

- The project area sediments have been the subject of extensive sampling and analysis which was coordinated with the U.S. Environmental Protection Agency. Some additional sampling is required which will be coordinated with U.S. Environmental Protection Agency and reviewed by the Interim Advisory Committee of the Contaminated Sediment Task Force (CSTF).

- All dredging activities are subject to discharge requirements (certification) of the Regional Water Quality Control Board.

- While dredging may result in some resuspension of contaminants bound to the fine sediments, leaving the sediments in place results in a long term opportunity for resuspension as well.

- There is no evidence that hydraulic dredges are <u>always</u> better for removal of contaminants. While they may result in less suspension of sediments at the cutter head, they may result in more turbidity at the end of the discharge pipe. Hydraulic dredges are not feasible for use in some project conditions (e.g. adjacent to unprotected wharves).

- Removal of contaminated sediments encountered during dredging will be permanently confined in a landfill as was recently unanimously approved by the Coastal Commission for the Port of Long Beach Pier E Project.

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- Contaminants present in the sediments at the proposed Cabrillo Shallow Water Habitat site and at the proposed Southwest Slip site will be permanently capped.

- The project continues the long term benefits that Port dredging and filling projects have had in removing historic sediment contamination from harbor sediments.

6. CONTAMINATED SEDIMENT ISSUES WILL BE COORDINATED WITH THE INTERIM ADVISORY COMMITTEE OF THE CONTAMINATED SEDIMENT TASK FORCE

- The Interim Advisory Committee of the CSTF, which was established to resolve issues associated with the disposal of contaminated sediment, will review the proposed project.

- The Port is an active participant in the Contaminated Sediment Task Force and actually took the lead in writing the document that established the Interim Advisory Committee.

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Heal the Bay

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May 22, 2000

Mr. Donald W. Rice
Director of Environmental Management
Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, CA 90733-0151

Sent Via Fax

RE: **Draft Supplemental EIS/EIR for the Port of Los Angeles Channel Deepening Project**

Dear Mr. Rice:

Heal the Bay is a nonprofit environmental organization with over 10,000 members dedicated to making the coastal waters of Southern California safe and healthy for people and marine life. We have advocated for cleaner waters in both the Port of Los Angeles and the Port of Long Beach for over ten years. Currently, Heal the Bay actively participates on the Contaminated Sediments Task Force (CSTF), working closely with the various regulatory agencies, resources agencies and the Ports to develop environmentally-sound management practices for dredged materials. In addition, we continue to advocate for protection of the California least tern and other coastal endangered species. Drawing on our 10 years of experience, Heal the Bay submits the following comments and concerns regarding the EIR for the proposed Port of LA channel deepening project:

1. **The EIR does not adequately consider all dredging alternatives as required by the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).**

HB-1

- Why isn't the alternative to deepen only a portion of the Port considered in the EIR? The EIR only included alternatives based on different dredging *depths* throughout the Port, but did not consider different dredging footprints. The EIR should consider alternatives in which deep-draft vessels are serviced in limited portions of the Port. For example, why can't the project objectives be realized by servicing deep-draft vessels at only Piers 300 and 400?

HB-2

- The EIR did not adequately pursue the alternative to use other West Coast Ports. The EIR states that improvements would be needed at other West Coast ports to handle deep-draft vessels and the resulting impacts would be similar to the impacts incurred at the Port of LA (page 1-19). No information

Earth Share

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HB-2

HB-3

to back up this assumption was provided. Given the fact that each Port has a unique combination of facilities and biological resources, it is not obvious that the impacts to biological resources and water quality would be the same if the project or a portion of the project was completed at another Port. What if the Port of LA serviced a portion of the deep-draft traffic at Piers 300 and 400 and other West Coast Ports serviced the remaining traffic?

HB-4

In table 5.1-2, the EIR states that improvements are *already* underway to service deep-draft boats at other West Coast Ports. If these improvements are indeed already being implemented, why should further degradation to our coastal waters be incurred at the Port of LA to provide redundant services for deep-draft vessels?

HB-5

The EIR should provide a detailed analysis of other Ports' abilities to handle deep-draft vessels including on-going efforts to construct facility improvements. Based on the information provided in the EIR, it is not clear the Port of LA's channeling deepening project must be completed at the proposed scale.

HB-6

2. The EIR does not adequately consider all disposal alternatives as required by NEPA and CEQA.

HB-7

- Why weren't upland disposal sites such as Anchorage Road considered in any of the project alternatives? According to table 1.5-3 on page 1-14, upland disposal sites are considered only for contaminated sediments that can't be used as fill material. In table 5.1-2, the EIR states the capacity at the Port's Anchorage Road site is limited. How much capacity does this site have? Why limit this site to disposal of contaminated sediments? What about other potential upland sites in the coastal area? What investigation has the Port pursued to identify other upland disposal sites? Clearly, upland disposal is a feasible alternative to landfilling that would result in substantially fewer impacts to biological resources.

HB-8

- Why weren't other types of sediment beneficial reuse options considered aside from landfilling? With such a large amount of sediment being produced, reuse options such as concrete stabilization should be considered. The impacts to biological resources in the Port would be greatly reduced if the sediments were treated and reused instead of used as landfill material, which permanently displace near-shore ocean resources. Although reuse options are more expensive then ocean disposal, this large project could benefit from economy-of-scale. In addition, a treatment and reuse facility could provide regional benefits by accepting dredged materials from other projects and from future Port of LA projects.

HB-9

3. The EIR does not adequately consider a significant impact of the Pier 300 expansion: permanent loss of preferred foraging habitat for the California least

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tern at the existing Pier 300 shallow water habitat (SWH). Although the preferred project includes construction of mitigation SWH in the Cabrillo area, least tern monitoring data summarized in the EIR clearly indicates foraging habitat at the Cabrillo SWH is not used by least terns at nearly the same rate they use the Pier 300 SWH. According to the EIR, foraging studies have been conducted in the Port since the early 1980s. The Cabrillo area has been used to varying degrees for foraging, but the least tern has preferred areas around Pier 400, and particularly Pier 300. Over the past three years, foraging has greatly increased in the Pier 300 SWH. In 1999, the EIR states least tern foraging was again "very high" in the Pier 300 SWH, particularly in the vicinity immediately adjacent to the pier. During this same time period, the number of least tern pairs and nests dramatically increased in the Port, rising more than 4-fold from 1996 to 1999 (Figure 3.4-2, page 3.4-7).

HB-9

Mitigation for the destroyed least tern foraging habitat may not be possible through the construction of more Cabrillo SWH because the least terns currently do not prefer the Cabrillo SWH for foraging. The EIR states the least tern's preference for Pier 300 SWH is probably due to an increase in prey in the Pier 300 area and Pier 300's proximity to the preferred nesting area on Pier 400. (According to the EIR, virtually all the least tern breeding and nesting occurs on Pier 400.) The Cabrillo SWH is more than 1 mile away from Pier 400, the usual radius from the nesting area the least tern will use for foraging. Destruction and disruption of the preferred foraging area at the Pier 300 SWH may result in a loss of all the gains made in the number of least tern pairs and nests in the Port over the past three years. For over a decade, this population has had to suffer through one major modification in the nesting and foraging area after another.

HB-10

Directly related to impacts on the least tern, the EIR did not include sufficient information on the water circulation impacts caused by the proposed Pier 300 expansion. The 40-acre expansion would result in a 14.5% loss of SWH and the 80-acre expansion would result in a 29% loss of the SWH. This loss could be compounded by potential reductions in water circulation and water quality in the remaining SWH, which, in turn, could impact the density of least tern prey in the preferred foraging area. The draft EIR briefly states modeling of water circulation and water quality had been conducted, but the results as they relate to least tern foraging were not discussed. The EIR does assume an additional 5% loss of SWH due to poor water circulation (page 3.4-12). Thus, 20% of preferred least tern habitat could be permanently lost due to the 40-acre Pier 300 expansion proposed in the preferred project alternative. This is clearly unacceptable.

HB-11

The destruction of the Pier 300 foraging area for the least tern is a permanent impact that will not be mitigated by the proposed Cabrillo SWH. The Port of LA is critical habitat to the least tern population in LA and Orange County, producing 19 percent of the total number of least tern fledging and the highest number of fledglings per pair in 1998 (draft EIR, page 3.4-8). Heal the Bay believes any project alternative that includes the Pier 300 expansion is not an environmentally-sound alternative.

HB-12

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4. **The EIR does not adequately consider alternative 53-8, creation of the 75-acre landfill at the Southwest Slip.**

HB-13

Based on the impact analysis provided in the EIR, alternative 53-8 may be the most environmentally-sound alternative analyzed. The Southwest Slip currently provides far less biological resources compared to that of the Pier 300 expansion area. The 40-acre Pier 300 expansion would result in destruction of 40 acres of SWH, 8.1 acres of eel grass, and approximately 20% of the preferred least tern foraging area. In addition, the Pier 300 SWH has the highest diversity of benthic invertebrates in the Port area (page 3.4-1). Not only would Pier 300 expansion destroy these biological resources, it will also impact water circulation in the remaining SWH in the Pier 300 area. Although filling the Southwest Slip would result in loss of soft-bottom habitat, water column habitat and limited pickleweed stands, the loss would be less significant than that caused by the Pier 300 expansion. The EIR states that water column species richness and diversity increases along a gradient from the inner harbor to the outer harbor. Thus, the Southwest Slip supports fewer and less dense populations of water column species relative to Pier 300. In addition, the Southwest Slip supports a relatively low density of benthic infauna communities and the sparse pickleweed stands supported at the Slip can be transplanted to another area. Finally, and perhaps most importantly, the Southwest Slip does not support least tern foraging.

HB-14

The EIR introduces alternative 53-8, the 75-acre Southwest Slip landfill, but then provides unclear and differing reasons why this alternative can not be considered. The EIR states the 75-acre landfill can accept up to 6.0 mcy of material (page 1-10). Later, the EIR states only 1.7 mcy of dredged material from the channel deepening could be accepted by the landfill and the remaining fill material would come from other sources after the deepening project was complete (Table 1.5-3, page 1-14). The EIR provided no explanation for why a much larger portion of the 6.0 mcy could not be dredged material from the deepening project. Based on figure 3.2-1, it appears a significant fraction of the dredged material will be coarse sand, which is the preferred material for landfills. In addition, as we've seen in the Port of Long Beaches recent slip fill project, a significant fraction of landfill material can be fine-grained material,

HB-15

which is placed in the bottom of the landfill. Based on the data in the EIR, it is feasible for a substantial portion (if not all – based on a more realistic assessment of dredging need) of the total 6.6 mcy of dredged material could be disposed of as fill material in the Southwest Slip.

HB-16

Section 5.0 of the EIR states the 75-acre landfill can not be completed at this time because it requires the relocation of the GATX facility. Why can't the GATX facility be relocated for the deepening project, a project that has an estimated average National Economic Development benefit of $42,334,000 per year with a benefit to cost ratio of 4.72 (page iii, Feasibility Study Main Report)? Is the Port imposing an artificial deadline on the channel deepening project at the expense of the biological resources in the harbor? After all, many of the deep-draft ships this project will accommodate are currently in the planning phase only. Is it feasible to take the time to relocate GATX?

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HB-17

Clearly, the long-term, permanent impacts to biological resources in the Port will be significantly less if the 75-acre Southwest Slip landfill is the *only* landfill constructed during this project. We believe section 5.4 of the EIR, in which the environmentally preferred alternative is chosen, is incomplete because this alternative was not considered. Of the alternatives considered in the EIR, the 75-acre Southwest Slip is the clear-cut choice for the environmentally preferred alternative that the EIR states is lacking (page 50-10).

HB-18

5. **The likely and permanent impact due to expansion of the Cabrillo SWH was not discussed: public health and safety impacts caused by the reduction of water circulation at the inner Cabrillo beach area.** This popular swimming area routinely has the worse microbiological water quality in LA county and consistently receives an 'F' on Heal the Bay's Beach Report Card. Also, the beach is listed on the SWRCB's 303(d) list as impaired for recreational water contact due to high fecal bacteria densities. Poor water circulation in the beach area contributes to the high bacteria densities measured at this beach. High indicator bacteria densities are found nearly 70% of the time at this beach. The proposed expansion of the Cabrillo SWH will further reduce water circulation, and thus, result in even higher bacteria densities at this beach. In fact, the low water circulation and subsequent poor water quality we see at Cabrillo beach have been exacerbated by the Cabrillo SWH the Port constructed in the early 1990s. Clearly, the mixed beneficial uses of recreation water contact and marine life habitat have not been analyzed in the EIR.

HB-19

6. **The EIR does not provide adequate mitigation from the impacts of dredging and then landfilling of contaminated sediments.** Dredging contaminated sediments can result in the reintroduction of contaminants into the water column. Once resuspended in the water column, tidally-driven water currents can pull these contaminants away from the dredging site and redistribute the pollutants in downstream areas of the harbor. The EIR states previous water quality monitoring during dredging has indicated "substantial resuspension of contaminated *sediments* does not occur" (page 3.3-7). However, our experience as a member of the CSTF has made it clear that adequate data is not available to conclude significant resuspension of *contaminants* does not occur during dredging or landfilling operations. We recommend the following mitigation measures:

HB-20

- Hydraulic dredging should be required for the dredging of all contaminated sediments. Hydraulic dredging results in much less turbidity and the potential for contaminant resuspension is greatly diminished. Ironically, the EIR proposed hydraulic dredging for clean sediment and clamshell dredging for contaminated material.

HB-21

- Silt curtains should be deployed during the placement of contaminated sediments into landfills. This control technique worked well for the Port of Long Beach's recent slip fill project in reducing sediment and contaminant loss as the fill material was placed into the slip.

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HB-22

7. **The EIR should include a summary of the data used to estimate the volume of contaminated sediments and the total dredged material volume.** The EIR contains very little information on how these estimates were derived. Clearly, the impacts caused by the project are a function of the amount of dredged material produced and the amount that is contaminated. With the limited amount of information provided in the EIR, it is impossible for the reader to determine if the volume estimates and the subsequent impacts are realistic.

HB-23

In summary, it appears the Port's desire for more terminal space has led to an inequitable and incomplete analyses of a set of alternatives that failed to include upland disposal of dredged materials; beneficial reuse of the dredged materials for products such as concrete; and a smaller-scale project which would generate less dredge material. In fact, the Feasibility Study for the channel deepening project completed by the U.S. Army Corp. of Engineers concluded the alternative that maximizes economic benefit to the nation (the National Economic Development (NED) plan) is one that did not include the Pier 300 expansion. The Los Angeles Harbor Department chose a modified NED which includes the Pier 300 expansion because it would create two landfills for expanded terminal operations (page 5-11 of the EIR). In other words, destruction of near-shore ocean habitat is proposed solely for the economic gain of the Port over a plan to maximize economic gain for the nation. To mitigate the loss of habitat due to landfilling, the EIR appears to give favorable consideration to alternatives that include expansion of the Cabrillo SWH and did not consider all the impacts of this alternative.

HB-24

HB-25

HB-26

Heal the Bay is disappointed with the current set of alternatives considered in the EIR and the incomplete analyses of significant impacts including loss of preferred least tern foraging habitat and human health impacts at Cabrillo Beach. We hope the Port will fairly evaluate upland disposal and beneficial reuse options that do not result in the permanent destruction of near-shore ocean habitat in the final EIR. At minimum, we urge the Port to evaluate the 75-acre landfill of Southwest slip, as this alternative is the less environmentally-damaging, landfill alternative. The Port of Los Angeles has already destroyed over 500 acres of near-shore habitat in San Pedro Bay in the last decade. The proposed dredging project moves the area one step closer to the total elimination of the Los Angeles portion of San Pedro Bay at substantial and unmitigatable costs.

Sincerely,

Mitzy Taggart
Staff Scientist

Mark Gold (MT)
Executive Director

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Response to Heal the Bay comments on the Port of Los Angeles Channel Deepening Project Draft Supplemental Environmental Impact Statement/Supplemental Environmental Impact Report (SEIS/SEIR).

HB-1. CEQA and NEPA both require an EIR/EIS to describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project (CEQA Section 15126.6 and NEPA 40 CFR 1502.14). The SEIS/SEIR adequately considers a large range of dredging alternatives as required by NEPA and CEQA and supplements the alternatives analysis contained in the Deep Draft Navigation. The alternatives analysis looked at four alternatives to deepening of the channel, five different dredge depths, and nine disposal sites combined in 21 different ways with the dredge depths (see SEIS/SEIR Table 5.1-2). We received no requests from Heal the Bay for analysis of additional alternatives during the scoping phase of this environmental process.

An alternative to only deepen a portion of the Port does not maximize the efficient use of the Harbor since this would not allow container vessels to call at many of the container terminals in the Inner Harbor. The document did address this issue in an Incremental Dredging alternative (page 1-21 of the DSEIS/R) which was eliminated because it would not allow maximum efficiency at the Inner Harbor container terminals (five of the seven major container terminals at the port are located in the Inner Harbor). In order to meet projected cargo demands, all container terminals at the Port will need to be operating at full capacity (See FS page 3-11) which includes use of design vessels at these terminals. In addition, the shifting of alliances, terminal occupancy shifts, long term terminal lease agreements and ship ownership make it infeasible to allocate all design vessels to Pier 300/400.

HB-2. The use of other west coast Ports is discussed in section 1.6 of the Channel Deepening Draft SEIS/SEIR and the previous discussion of this issue in the Deep Draft Navigation Project (COE and LAHD 1992). Generally, increased cargo handling is anticipated at all west coast ports (see WEFA 1987 and Mercer 1998) that handle containerized cargo, even with this project, and therefore the Port of Los Angeles is only receiving a portion of the west coast cargo. To operate efficiently, the existing facilities/tenants at the Port will require facilities that allow the newest generation of cargo vessels to arrive fully loaded. As pointed out in HB-1 above, it is not feasible to have design vessels only call at Pier 300 and 400. Major diversion of cargo to other ports that do not have the load center of the Ports of Los Angeles/Long Beach, could also result in back haul of cargo to the 15 million people living in the Los Angeles region; this has significant traffic, air, and cost implications. Other west coast ports (most notably Oakland in San Francisco Bay and Seattle/Tacoma in the Puget Sound) are also located in areas with valuable

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biological resources including significant estuarine habitats, vegetated wetlands and threatened and endangered species (e.g., recently listed salmonids). A recent project to just deepen channels in Oakland required resolution of major environmental issues associated with the dredging. In addition, the overall land use planning associated with the Deep Draft Project included the existing location of container terminals in the Inner Harbor and the need to improve efficiencies at these terminals. This planning effort was approved by the California Coastal Commission through Master Plan Amendment 12 and 17.

HB-3. As noted in HB-1 and HB-2 above, even with facility improvements at other ports, the amount of cargo coming through all west coast ports will be increasing. The Ports of Los Angeles/Long Beach will be receiving only a share of this cargo. It should also be noted that Chapter 8 of the California Coastal Act specifically identifies the Port as one of California's "primary economic and coastal resources and an essential element of the national maritime industry."

HB-4. As discussed in response HB-2 above, increased cargo handling is anticipated at all west coast ports. Therefore, the improvements proposed through the Channel Deepening Project are not redundant.

HB-5. As indicated in HB-2 –4, even with improvements at other Ports, the Port of Los Angeles will still need to make improvements to realize cargo handling efficiencies and to accommodate its share of forecasted cargo. The channel dimensions identified here and therefore the dredge volumes, are justified in the Feasibility Study as those required to accommodate existing and anticipated container vessels in the world fleet.

HB-6. CEQA and NEPA both require an EIR/EIS to describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project (CEQA Section 15126.6 and NEPA 40 CFR 1502.14) which is to accommodate container vessels and cargo at the Port. The beneficial use of dredge material in the context of this project is a use that would further this purpose (i.e., create cargo handling efficiencies). The SEIS/EIR adequately considers a large range of disposal alternatives as required by NEPA and CEQA and supplements the alternatives analysis contained in the Deep Draft Navigation Project. The alternatives analysis looked at four alternatives to deepening of the channel, five different dredge depths, and nine disposal sites combined in 21 different ways with the dredge depths (see SEIS/SEIR Table 5.1-2).

HB-7. Upland disposal sites were considered in the instance where the material is contaminated (i.e., at Anchorage Road) and where there is a feasible beneficial use. Anchorage Road is the Port of Los Angeles/Long Beach's only site available for the disposal of contaminated maintenance dredge

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material and presently has a capacity of approximately 90,000 cubic yards. Approximately 40,000 cubic yards of this space will be taken up by maintenance dredging projects planned over the next two years. Since the space would not handle the contaminated material from the Channel Deepening Project it certainly could not handle the 6.1 million cubic yards of clean material. Upland disposal of clean material is not considered a feasible alternative to landfilling as indicated in HB-8 below. All other areas of the Port area are presently needed/used for cargo terminals. A previous proposal by the Port of Los Angeles to use Pier 400 as a disposal site has been eliminated because the site is presently unavailable due to construction of a container terminal at this location. While the Port is unaware of any other upland disposal site that would accept saline sediments, much of which is nonstructural in nature, there is a bona fide need by the Port to increase its ability to accommodate cargo by constructing new land. Construction of fill using coarse grain sediments is in the Port of Los Angeles' perspective is a beneficial use of this material that would be used to provide terminals to accommodate maritime trade, and minimizes the amount of material that needs to be disposed of at an ocean disposal site. Effects on biological resources have been coordinated with the U.S. Fish and Wildlife Service, National Marine Fisheries Service and the California Department of Fish and Game, and are entirely mitigated.

HB-8. While construction of new land does result in the loss of marine habitat, this disposal is a justified, mitigated, cost effective and beneficial use of dredge material to accommodate and increase efficiency of cargo handling at the Port of Los Angeles. Even with economies of scale the cost to make this material available for other uses (e.g. building materials) is very expensive Present costs per cubic yard for disposal of material is $6 to $11 for disposal at LA-3, $3 to $7 for disposal at an in-bay disposal site and $20 to $25 for disposal of contaminate sediment to our Anchorage Road site. Assuming there was a market for materials produced and a location where these products could be treated/prepared, the least expensive (for instance sediment stabilization) would cost an additional $20 a cubic yard to our existing upland disposal costs (i.e., $40 to $45 per cubic yard). As a comparison, clean dirt from the Alameda Corridor is being sold for approximately $5 to $6 per cubic yard which might represent a reasonable sale price of stabilized sediment sold on the Los Angeles market. Disposal of project materials to an upland site might therefore cost approximately $297 million dollars whereas the disposal of materials for the Recommended Plan will cost approximately $80 million. In addition, dredging is a sporadic activity at the Port, and large quantities of material would not be available at all times. As Heal the Bay is aware, the Los Angeles Contaminated Sediment Task Force is examining the beneficial reuse of sediment in the context of utilization of contaminated sediment and has not made any recommendations in this regard. As indicated above, clean, structurally good sediment will continue to be a valuable resource to the Port in the construction of new terminals necessary to accommodate maritime

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commerce. As long as there is a need for increased cargo handling efficiencies, the Port will continue to utilize dredge material for construction of new land even if other beneficial resuses prove to be more cost effective/available.

HB-9. The SEIS/SEIR adequately considers impacts to the California least tern. Section 3.4 of the SEIS/SEIR contains a thorough discussion of the environmental setting and potential effects on the least tern. In addition, this project has been coordinated with the U.S. Fish and Wildlife Service who has determined that the proposed activity would not jeopardize the California least tern While the least tern frequently uses the Pier 300 Shallow Water Habitat for foraging, this does not mean that replacement of 40 acres of this area at the Cabrillo Shallow Water Habitat would have any effect on the least tern reproductive biology. Data collected in 1988 on tern foraging indicated that birds foraged predominantly to the south of Pier 300 followed by just outside the breakwater and in the Port of Long Beach. Last year, the birds also foraged predominantly in deep water to the East of Pier 400. This year birds foraged initially in the Pier 300 Shallow Water Habitat and in the Port of Long Beach but more recently have moved off shore to feed. In past years, the birds also foraged at Machado Lake; this has ceased in recent years Thus, the birds use different locations in different years, probably based on the local abundance of forage fish. In addition, recent sampling of the Cabrillo Shallow Water Habitat shows the presence of high numbers of small fish (particularly northern anchovy) in this area (MEC 1999) and tern foraging in this area has increased since foraging studies conducted in 1988. Therefore, creation of this area provides an alternative site for the terns to forage. Taking into account the variability of tern foraging over the years, the over 500 acres of shallow water presently available to the least tern at a variety of locations and the increase in usage of the new shallow water, there is no reason to conclude that construction of the 40-acre fill site adjacent to Pier 300 will adversely affect the least tern.

HB-10. As noted in response HB-9 above, the U.S. Fish and Wildlife Service has reviewed the analysis in the SEIS/SEIR and measures to protect the least tern, and determined that the proposed project would not jeopardize the least tern. In addition, the foraging area adjacent to Pier 300 has remained relatively unchanged over the past decade, while the number of breeding pairs has increased considerably in the last two years, This is due to a number of factors including the availability of nesting habitat on Pier 400, Port management of the site in coordination with USFWS, relocation of birds from other nesting colonies and macro-environmental factors. Adequate foraging areas for the terns would remain even with the proposed Pier 300 fill (see HB-9 above). The Pier 300 Shallow Water Habitat is presently more then one mile from the designated nesting site and is still utilized by the least tern. The Cabrillo Shallow Water Habitat is within a mile of the designated least tern nesting site The major successes of the tern nesting at the Port have

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occurred during major Port improvement projects (i.e. the Harbor Deepening Project in the mid 1980s and the recently completed Deep Draft/Pier 400 project).

HB-11. .The water quality and circulation impacts as discussed in the Oceanography and Water Quality section of the SEIS/SEIR found no significant impacts based on the modeling results. This water quality analysis is extensive and was reviewed by the resource agencies in arriving at the proposed mitigation and habitat replacement determinations. Even so, the assumption of a 5% loss of shallow water habitat due to water quality was arbitrarily assumed as a worst case scenario and is not substantiated by the water quality modeling results which showed no change in water quality parameters as a result of constructing the 40-acre Pier 300 fill. The 80-acre fill is not being considered at this time. The 5% reduction in habitat value is unlikely to occur as a result of the proposed project, but was included as a conservative measure for overall marine resources. It does not relate to a reduction in a reduction in the abundance of common prey species, the topsmelt and northern anchovy. Both of these species are found in high numbers in the Pier 300 Shallow Water Habitat and are not expected to be reduced in number following project implementation. There will be no loss of foraging habitat or foraging habitat value as a result of the project.

HB-12. Placing fill in the Pier 300 Shallow Water Habitat is a permanent impact as identified in the SEIS/SEIR, but this area is being replaced at the Cabrillo Shallow Water Habitat as agreed to by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. The high rate of fledglings per pair in the Port of Los Angeles in 1998 is due to a variety of factors, including the excellent management of the nesting activity by the Port in coordination with the U.S. Fish and Wildlife Service. Forage fish availability in the Harbor area in general is also important, and is related to many environmental and biological factors, not just the size of the Pier 300 Shallow Water Habitat. In 1999 the fledging rate was not as high as in 1998 under seemingly very similar circumstances.

HB-13. The 75-acre fill in Southwest Slip is included for later consideration and is not available at this time because it cannot be implemented within the Channel Deepening Project schedule as described in section 5.1 of the SEIS/SEIR and because it would not accommodate cargo increases at Pier 300. As indicated in HB-9-12, all impacts associated with the Pier 300 fill have been mitigated with the amount of habitat replacement being commensurate with the habitat lost. The higher value of the Pier 300 Shallow Water Habitat is taken into consideration in developing the appropriate mitigation (see SEIS/SEIR Table 3.4-4).

HB-14. Page 1-10 of the SEIS/SEIR is quite clear on the amount of dredge material that could be placed at the Southwest Slip. The 35-acre fill that is part of the

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Recommended Plan could accept approximately 1.7 million cubic yards of material that would come from the Channel Deepening Project. If the fill was expanded to 75 acres in the future, it could accept a total of 6.0 million cubic yards. Since the 75-acre fill will be constructed in the future, the fill material for this effort must come from some other source.

HB-15. The slip fill recently constructed did include a component of fines from the Port of Long Beach's own dredging as well as fine material from the Los Angeles River. Marina Del Rey material was more coarse-grained. It is the intention to place fine materials at the Southwest Slip associated with the placement of contaminated sediments. However, the proportion of fines acceptable is based on site-specific requirements (seismic requirements, future facility requirements, underlying geology, space available, containment structures, dewatering techniques, etc.). Under any circumstance coarse grained material is the preferred material and this design consideration cannot be compromised. As indicted in HB-13 and 14, construction of the fill at the Southwest Slip would not serve the needs of the Pier 300 facility. The Port tenants will need additional cargo handling capabilities at both these locations.

HB-16. The GATX lease presently extends until the year 2013. Even if there were a negotiated termination of the lease, it would not be feasible to decommission and/or relocate the facility in the time period required by the Channel Deepening Project. There are presently ships in the world fleet that are calling partially loaded or could be calling at the Port of Los Angeles fully loaded if the channel to all of the container terminals was at -53 feet, and therefore, the timeframe required is not unrealistic or artificial (See FS page 3-11). As indicated elsewhere, implementation of the 75-acre fill is needed in addition to the 40-acre fill at the Pier 300 site is not being considered at this time, and would not help the Pier 300 facility with its need for the efficient transfer of cargo.

HB-17. With the proposed mitigation, there are no long-term permanent impacts to biological resources. In fact the construction of the Cabrillo Shallow Water Habitat and Southwest Slip fill will be a benefit by covering areas of the harbor that have elevated levels of some contaminants. Section 5 of the SEIS/SEIR is complete. Since the construction of the 75-acre fill (alternative –53-8') cannot be conducted in the time frame of the federal project, it cannot be considered a feasible alternative at this time (see HB-16 above). Implantation of this alternative (i.e. –53-8') would not accommodate needed cargo handling efficiencies at the Pier 300 site.

HB-18. The effects of construction of the Cabrillo Shallow Water Habitat were adequately addressed in the SEIS/SEIR regarding effects on recreational uses and biological resources in the harbor (see sections 3.4 and 3.10) relative to those issues identified in the Notice of Intent/Preparation for the Draft

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SEIS/SEIR. The Inner Cabrillo Beach has had chronic high levels of bacteria, and unlike at least some beaches, these high levels occur during low runoff periods. Extensive sampling of the beach and infrastructure (storm drains and sewer lines) surrounding the beach have shown birds, which roost on the beach in large numbers, as the likely source of the high bacteria counts on the beach. While a strong current running along the beach might act to disperse bacteria, to our knowledge, there is no information that substantiates Heal the Bay's claim that "Poor water circulation in the beach area contributes to the high bacteria densities measured at this beach" or that construction of the existing Cabrillo Shallow Water Habitat has "been exacerbated by the Cabrillo SWH the Port constructed in the early 1990s."

Water quality data in the following table show that dissolved oxygen, BOD, and water clarity (trans.) have not decreased, and may even have increased, after construction of the Cabrillo Shallow Water Habitat.

Comparison of Water Quality Parameters at Station LA05* Before (1991-1993) and After (1999) Construction of the Cabrillo Shallow Water Habitat

Year	*Trans.*** *(ft)*	*DO*** *(mg/L)*	*BOD*** *(mg/L)*	*Temp.*** *(°C)*
1991	6.2 (4.0-8.0)	83. (6.7-10.0)	2.1 (0.0-8.0)	15.6 (13.4-17.8)
1992	7.8 (5.0-12.0)	7.3 (5.9-8.8)	1.3 (0.0-2.9)	17.9 (13.4-20.9)
1993	9.1 (5.0-13.0)	7.4 (6.1-8.1)	1.9 (0.3-4.0)	17.4 (14.2-20.0)
1999	9.7 (8.0-12.0)	7.6 (6.9-9.1)	1.3 (0.6-2.5)	16.1 (14.1-18.1)
*Station LA05 is located approx. 1,000 feet east of Inner Cabrillo Beach. **Mean and (range) for samples taken each month of the year.				

Recent discussions with Dave Marke and Berry Bunch at the Waterways Experiment Station in Vicksburg indicated that expansion of the Cabrillo Shallow Water Habitat would have not have any effect on the circulation in the shallow water adjacent to the Inner Cabrillo Beach. However, a reduction in water volume in this area of the harbor may increase tidal velocities, which could increase water exchange in the area. Expansion of the eel grass in the area of Cabrillo Beach in recent years indicates that the water quality in the area is good, although the eelgrass itself may tend to reduce circulation between the eelgrass bed and the beach.

HB-19. Contaminants are generally tightly adsorbed to the sediment particles, or trapped between particles, and are not released to the water column as shown by elutriate tests. Also being a participant in the Contaminated Sediment Task Force, we are unaware of data that may be available to Heal the Bay that shows there is substantial resuspension of contaminated sediments. It should be noted, that leaving contaminated sediments on the bottom over the long term also creates opportunity for resuspension (e.g. from normal currents of propeller wash from ships) and an even greater opportunity for

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bioaccumulation. Removal of this material to an upland or confined disposal facility or capping in place represent beneficial aspects of Port dredging.

HB-20. Hydraulic dredging is not necessarily the best way to remove contaminated sediment. While turbidity/resuspension may be reduced at the cutter head, there may be increased turbidity at the discharge end of the pipe, depending on where the material is being disposed of. While a clamshell dredge may have more turbidity at the dredge site, the dumping of the material from a bottom dump barge (especially in a shallow area) may result in less resuspension at the disposal site. There are also practical considerations that need to be taken into account when determining the equipment to be used during dredging. For instance, some locations do not lend themselves to hydraulic dredging such as near the base of pilings that support wharves or, to remove hard material. Upland disposal in a confined location is also difficult due to the difficulty of dealing with large amounts of return water. To our knowledge, the Contaminated Sediment Task Force has not yet arrived at appropriate Best Management Practices (BMPs) that would recommend the use of hydraulic dredges for removal of contaminated sediments.

HB-21. Use of silt curtains appears to work in some locations and may have been effective at the Port of Long Beach. In areas of significant currents of great depth, silt curtains tend to be more difficult to deploy and less reliable in containing turbidity. Their use will be considered during the design process for the proposed project and used where appropriate. The methodology for placement of the material would be discussed with the members of the Interim Advisory Committee of the Contaminated Sediment Task Force which Heal the Bay attends.

HB-22. The estimate of contaminated material to be removed is based on a calculation of the quantities of material present in areas where contaminated sediments were identified and is conservative (an overestimate). It therefore represents an adequate information base for the purposes of a NEPA/CEQA evaluation. We concur that the project impacts may be related to the amount of contaminated material but that these impacts (removal of contaminants) are largely beneficial. A great deal of data on contaminants in the project area was collected under the guidance of U.S. EPA and serves as a basis for this analysis (see Fugro West 19 __ listed in the reference section of the SEIS/SEIR). In discussions with the U.S. EPA, the additional sampling that may be required for this project in some limited locations will be discussed before the Interim Advisory Committee of the Contaminated Sediment Task Force.

HB-23. See responses to HB-6 and 7 above. It is true that Port tenants require additional terminal space and this is justified in light of the cargo forecast conducted by the San Pedro Bay ports (Mercer 1998). However, as indicated

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in Responses HB-1 – HB-8, the alternatives to this project are adequate and were scoped out during a Notice of Intent/Notice of Preparation (which was sent to Heal the Bay) and a public meeting prior to preparation of the Draft SEIR/SEIS.

HB-24. The NED plan is the plan that optimizes the transportation savings of the channel deepening at the least cost to the federal government and has no relationship to which alternative is necessarily the least environmentally damaging or the project that is the most feasible for implementation by the local sponsor. For the Pier 400 project, the NED Plan was to dispose of nearly 50 million cubic yards to an Ocean Disposal Site because this was the least cost to the federal government in accordance with their feasibility study guidelines. This clearly was an unacceptable plan from the Port's perspective. The present disposal options will allow creation of needed cargo terminals and minimize the amount of material to be disposed of at an Ocean Disposal site.

HB-25. In accordance with the Port's mandate to accommodate maritime commerce pursuant to the California Coastal Act, the Locally Preferred Plan (and Recommended Plan) does include additional fill. The Locally Preferred Plan does not provide for economic gain of the Port over the federal plan because the federal government does not pay for any costs above those identified for the NED Plan.

HB-26. As indicated above, the alternatives analysis and analysis of impacts of the proposed project is complete and was carried out in accordance with NEPA and CEQA. There will be no significant, unmitigated effects to the least tern foraging or human health at Cabrillo Beach. Upland disposal sites are not feasible or appropriate use of dredge material in light of the demand for the Port to accommodate the ever increasing amounts of cargo coming through the Port. The permanent loss of marine habitat resulting from the project has been mitigated to insignificance through the use of approved Port mitigation banks and expansion of the Cabrillo Shallow Water Habitat. The 75-acre landfill is not immediately available to the Port and would not replace additional cargo handling facilities needed at Pier 300. In the last decade, the Port has not filled any water areas that were not totally mitigated through on- or off-site mitigation projects in accordance with federal and state requirements. The Port of Los Angeles represents one of the six locations identified in the California Coastal Act as locations where maritime commerce is to occur. The filling of these waters to accommodate this trade is an allowable use when furthers the purpose and objectives established through the Deep Draft Navigation Project and established in the California Coastal Act.

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