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STAFF RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-046-08
Staff:	LS-SF
File Date:	8/14/2008
60 th Day:	10/13/2008
75 th Day:	10/28/2008
Extended to:	6/12/2009
Commission Meeting:	6/12/2009

FEDERAL AGENCY: U.S. Army Corps of Engineers

PROJECT LOCATION: Port of Los Angeles and LA-2 ocean disposal site, Los Angeles County (**Exhibits 1 and 2**)

PROJECT DESCRIPTION: Dispose approximately three million cu.yds. of dredged material at the Northwest Slip, Berths 243-245, and Cabrillo Shallow Water Habitat expansion area in the Port of Los Angeles, and at the LA-2 ocean disposal site to complete the previously-approved Channel Deepening Project in the Port of Los Angeles.

SUBSTANTIVE FILE DOCUMENTS: See Page 26

EXECUTIVE SUMMARY

The Coastal Commission received a consistency determination from the U.S. Army Corps of Engineers for disposal of 3.0 million cubic yards of dredged material at the Northwest Slip, Berths 243-245, and Cabrillo Shallow Water Habitat expansion area in the Port of Los Angeles, and at the LA-2 ocean disposal site, to complete the previously-approved Channel Deepening Project in the Port of Los Angeles (CD-050-00 and CD-006-02). The additional disposal requirements arise from revised project bathymetric data, the occurrence of shoaling and settlement of material, changes in sediment bulking rates, the need to dispose of surcharge materials, the opportunity to remove and confine contaminated sediments, and other construction design changes.

The Northwest Slip would receive 128,000 cubic yards (cu.yds.) of clean dredged material to create a five-acre landfill behind a rock containment dike. The LA-2 ocean disposal site would receive 804,000 cu.yds. of clean, fine-grained dredged material unsuitable for beach replenishment due to incompatible grain size. Berths 243-245 would receive 368,000 cu.yds. of dredged material to create an eight-acre landfill behind a rock containment dike. This landfill would serve as a confined disposal facility for 170,000 cu.yds. of contaminated sediments placed on the floor of the berths; approximately 198,000 cu.yds. of clean sediment would then be placed above the contaminated materials. A 50-acre expansion of the existing Cabrillo Shallow Water Habitat area would receive approximately 1.7 million cu.yds. of clean dredged material placed behind a rock containment dike along the north side of the expansion area. The anticipated disposal operations would start in October 2009 and occur 24 hours per day, seven days a week for 22 months.

A port master plan amendment (PMPA No. 24) submitted by the Port of Los Angeles for the proposed development is scheduled to be heard by the Commission at its June 2009 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 Coastal Act Section 30705(a) requirement that the proposed disposal and fill activities in the subject consistency determination be consistent with the certified port master plan. However, should the Commission either object to (in full or in part) or postpone action on PMPA No. 24 at the June 2009 meeting, the Commission staff would need to change its recommendation on this consistency determination or the Corps would need to extend the statutory time limit for Commission action.

The proposed disposal of dredged material at the Northwest Slip, Berths 243-245, and the Cabrillo Shallow Water Habitat expansion area is an allowable use under Coastal Act Section 30705(a)(1, 2, and 6). The proposed disposal of dredged material at the LA-2 ocean disposal site is an allowable use under Coastal Act Section 30233(a)(1). The proposed disposal operations 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. The project is consistent with the fill policies of the California Coastal Management Program (CCMP; Coastal Act Sections 30705, 30706, and 30233(a)).

The project will generate only minor, short-term effects on water quality and marine resources in the Port and at the LA-2 ocean disposal site. Disposal activities will not result in any significant, adverse effects on water quality due to the nature of the dredged materials, the location of disposal sites, the permanent containment of contaminated sediments, and the water quality protection measures incorporated into the project. Proposed dredged material disposal at the Northwest Slip, Berths 243-245, and the CSWH expansion area will not generate significant, adverse effects on marine habitat in the Port of Los Angeles. The project includes mitigation measures to protect California least tern and California brown pelican foraging areas, protect California least tern nesting activities, replace pickleweed habitat lost at the Northwest Slip, and apply existing mitigation credits to offset the loss of deepwater marine habitat from landfills in the Northwest Slip and Berths 243-245. The Corps will also continue to implement the water quality and marine resource protection measures incorporated into the previously-approved Channel Deepening Project consistency determinations (CD-050-00 and CD-006-02). The project is consistent with the water quality and marine resource protection policies of the CCMP (Coastal Act Sections 30705, 30706, 30708, 30230, 20331, and 30233(b)).

Disposal operations will generate only temporary and minor effects on recreational boating and fishing, primarily in the vicinity of the Cabrillo Shallow Water Habitat expansion area and at the LA-2 ocean disposal site. Disposal at the former site would not affect water quality or circulation offshore of Cabrillo Beach and would therefore not adversely affect recreational use of the beach. The project is consistent with the public recreation and recreational fishing and boating policies of the CCMP (Coastal Act Sections 30706, 30708, 30224, and 30234.5). Sediment analysis indicates that the dredged materials are not suitable for beach replenishment due to the predominately small grain size of the sediments. The proposed disposal of these sediments at the Northwest Slip, Berths 243-245, the Cabrillo Shallow Water Habitat expansion area, and the LA-2 ocean disposal site is consistent with the sand supply policy of the CCMP (Coastal Act Section 30706).

STAFF SUMMARY AND RECOMMENDATION

I. Background.

A. Previous Commission Action. Since 1993 the Commission has concurred with consistency determinations (CD-57-92, CD-2-97, CD-50-00, and CD-006-02), numerous negative determinations, and Port of Los Angeles port master plan amendments (POLA PMPA Nos. 12, 13, 15, 17, 19, and 21), for construction of the Port of Los Angeles Deep Draft Navigation Improvement Project and the Channel Deepening Project, which include channel deepening, landfill and terminal construction, and mitigation measures for impacts to marine habitat. The subject consistency determination is a refinement of the Channel Deepening Project in the Port of Los Angeles previously approved by the Commission in CD-050-00 and CD-006-02.

The Commission concurred with the Phase 1 consistency determination (CD-050-00) for the Channel Deepening Project on July 13, 2000, which included the following elements:

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

The Commission concurred with the Phase 2 consistency determination (CD-006-02) for the Channel Deepening Project on May 7, 2002, which included the following elements and modifications to the project:

- Dispose 4.7 million cubic yards (mcy) of clean dredged material at the Pier 400 submerged storage site;
- Increase the size of the Southwest Slip fill from 35 to 42 acres and place all contaminated dredged materials within the west fill section;
- Improve the Los Angeles County flood control channel along the northern boundary of the Southwest Slip fill;
- Construct two acres of landfill at the south end of Berth 100;
- Dredge the East Basin in the Cerritos Channel to -53 feet mean lower low water;
- Construct the Seaplane Lagoon eelgrass restoration area; and
- Provide reports on sediment disposal decisions, circulation and water quality monitoring, and post-project water quality and least tern monitoring plans.

To date, the volume of material dredged or excavated as a result of the Channel Deepening Project has increased from the initial 6.6 million cu.yds. (CD-050-00) to approximately 12.7 million cu.yds (CD-006-02, ND-044-03, and ND-042-04). The April 2009 Final Supplemental EIS/EIR for the proposed project states that:

Construction of the Channel Deepening Project began in September 2002. Over the next five years, several changes to the Channel Deepening Project were required as a result of revised bathymetric data, the occurrence of shoaling and settlement of material, design changes, the need to dispose of surcharge, the opportunity to remove and confine contaminate dredged material, and other design and construction modifications. These project changes were analyzed and documented in three separate Supplemental Environmental Assessments (EAs) prepared by USACE in 2002, 2003, and 2004. As a result of these developments, the total volume to be disposed after the 2004 Supplemental EA (USACE, 2004) was approximately 12.700 mcy.

The Channel Deepening Project elements completed to date include deepening of the Main Channel, Turning Basin, West Basin, and several berth areas, and the placement of dredged material to create the Southwest Slip fill areas 1 and 2, the Cabrillo Shallow Water Habitat, the Pier 400 submerged material storage site, the Pier 300 expansion, and the eelgrass restoration area adjacent to Pier 300. The Corps now states that in order to complete the Channel Deepening Project, additional disposal sites must be used to receive the final three million cu.yds. (mcy) of dredged material associated with the project. At this time, no additional disposal capacity remains to complete the Channel Deepening Project. The total amount of disposal capacity required to handle the remaining dredged material and surcharge material is approximately three mcy. Of this volume, 1.025 mcy comes from channel deepening, 0.675 mcy from berth deepening, 0.815 mcy from removing surcharge on the Southwest Slip, and the remaining 0.485 mcy of capacity is related to dredging practices and dredged material disposal behavior. To complete the approved Channel Deepening Project, approximately 68 acres of navigation channel and 34 acres of berth areas still require dredging. A detailed project description is provided in Section II, below.

B. Standard of Review. The proposed dredged material disposal activities are examined in this report for consistency with the policies of Chapter 8 of the Coastal Act (for the disposal sites in the Port of Los Angeles) and the Chapter 3 policies (for the LA-2 ocean disposal site). The subject consistency determination does not reexamine the previously-concurred-with Channel Deepening Project, including the deepening of harbor channels and berths to the authorized navigation depth of -53 feet mean lower low water.

A port master plan amendment (PMPA No. 24) submitted by the Port of Los Angeles for the proposed development is scheduled to be heard by the Commission at its June 2009 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 Coastal Act Section 30705(a) requirement that the proposed disposal and fill activities in the subject consistency determination be consistent with the certified port master plan.¹ However, should the Commission either object to (in full or in part) or postpone action on PMPA No. 24 at the June 2009 meeting, the Commission staff would need to change its recommendation on this consistency determination.

¹ Coastal Act Section 30705(a) states in part that "Water areas may be diked, filled, or dredged when consistent with a certified port master plan"

II. Project Description. The Corps of Engineers proposes to complete the Channel Deepening Project by providing 3.0 million cubic yards (mcy) of additional disposal capacity and optimizing beneficial reuse of the dredged material within the Port of Los Angeles (**Exhibits 1 and 2**). Additional disposal sites are needed because disposal sites developed for dredged material from the Channel Deepening Project are inadequate for the total volume of sediments that still require removal from the Main Channel, adjacent berth areas, and the Southwest Slip surcharge. As noted previously, the current capacity shortfall results from an increased volume of dredged material due to revised bathymetric data, shoaling and material settlement subsequent to previous Channel Deepening Project dredging operations, greater than expected bulking of dredged materials, the need to dispose of Southwest Slip surcharge, design and construction modifications, and the opportunity to remove and confine contaminated sediments.

The Corps proposes to use the Northwest Slip, the LA-2 ocean disposal site, Berths 243-245, and the Cabrillo Shallow Water Habitat expansion area to receive the three million cu.yds. of dredged material to complete the Channel Deepening Project. The Northwest Slip would receive 128,000 cu.yds. of clean dredged material to create a five-acre landfill behind a new rock containment dike (**Exhibits 3 and 4**). The fill material would come from the foundation trench required to construct the containment dike (50,000 cu.yds) and from Berth 100 surcharge (78,000 cu.yds. of previously-dredged material). The LA-2 ocean disposal site would receive approximately 804,000 cu.yds. of clean, fine-grained materials from channel and berth deepening and which is not suitable for beach replenishment due to incompatible grain size (**Exhibit 5**).

The Berths 243-245 site would receive approximately 368,000 cu.yds. of dredged sediments to create an eight-acre landfill (**Exhibits 6 and 7**). This landfill would also serve as a confined disposal facility (CDF) for the containment of 170,000 cu.yds. of contaminated sediments at the bottom of Berths 243-245 and from the deepening of Berths 125-131, 136-137, 212-215, and 220-221 (**Exhibits 8-10**). The May 2009 Draft Contaminated Sediment Management Plan states that the proposed disposal site, which consists of two open water slips covering approximately eight acres, was part of the now-vacant Southwest Marine Shipyard site. This site, along with an adjacent parcel to the north, Berth 240Z, was occupied by a number of ship builders and repair operations for nearly 100 years, and the berths contain contaminated sediments from past shipyard operations.

The April 2009 Final Supplemental EIS/EIR for the project states that approximately 90,000 cu.yds. of contaminated sediment would be dredged to an elevation of approximately -58 feet MLLW to create the foundation for the Berths 243-245 landfill containment dike. This material would be placed into the deepest part of the berth behind an underwater containment berm comprised of clean dredged sand. About 270,000 tons of quarry run rock and 20,000 tons of rock revetment would be used to construct the containment dike in stages. Uncontaminated coarse grained dredged materials would be placed behind the dike for added structural stability and would serve as buffer zone between the dike and the contaminated sediments placed at the back of the berth. The rock dike would rise to an interim elevation of approximately -20 to -15 feet MLLW in order to provide containment of dredged materials while still allowing hull clearance for bottom dump scows to place the final 80,000 cu.yds. of contaminated material from

the aforementioned berth deepening sites. Next, approximately 198,000 cu.yds. of uncontaminated fine-grained materials from berth and channel dredging operations would be placed on top of the contaminated sediment layer, to be followed by a ten-foot-thick sand cap. Lastly, approximately 180,000 cu.yds. of surcharge from the Southwest Slip landfill would be transported to the Berth 243-245 landfill to be used as surcharge at this location.

A 50-acre expansion of the existing 333-acre Cabrillo Shallow Water Habitat area would receive approximately 1.7 million cu.yds. of Channel Deepening Project dredged material (**Exhibits 11 and 12**). A foundation trench would be dredged and a rock dike constructed to an elevation of -15 feet MLLW along the north side of the expansion area. Fine-grained dredged sediments would be pumped to the site via a hydraulic pipeline and would raise the elevation of the ocean floor from the existing -40 to -51 feet MLLW up to -17 feet MLLW. The site would then be capped with a two-foot-thick layer of coarse-grained material obtained from the surcharge at the Southwest Slip landfill, raising the final elevation of the expansion area to -15 feet MLLW. The proposed shallow water expansion area would likely increase the value of marine habitat in the outer harbor and this increased value may be credited towards the existing Port of Los Angeles outer harbor mitigation bank. In coordination with NOAA Fisheries and other interested resource agencies, a monitoring program will be developed prior to the start of construction of the expansion area in order to document the expected increase in biological value. Monitoring results would then be used to determine whether additional mitigation credits can be assigned to the aforementioned mitigation bank.

The Corps of Engineers currently estimates that resumption of the Channel Deepening Project, including dredged material disposal at the four proposed disposal locations, would commence in October 2009, after completion of the NEPA/CEQA process and issuance of permits by the Corps of Engineers and the Port of Los Angeles. Work would occur 24 hours a day, seven days a week for approximately 22 months.

III. Federal Agency's Consistency Determination. The U.S. Army Corps of Engineers has determined the project consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

IV. STAFF RECOMMENDATION.

The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission **concur** with consistency determination CD-046-08 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

Staff Recommendation:

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

Resolution to Concur with Consistency Determination:

The Commission hereby **concurs** with the consistency determination by the U.S. 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 CCMP.

V. Findings and Declarations:

The Commission finds and declares as follows:

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

(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.

. . .

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

(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.

(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 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 provides in part that:

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

. . .

(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

Section 30233(a) of the Coastal Act provides in part that:

(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

The proposed dredged material disposal activity within the Port of Los Angeles must be examined for consistency with Section 30705 of the Coastal Act, and the proposed disposal at the LA-2 ocean disposal site must be examined for consistency with Section 30233(a) of the Coastal Act. Under Section 30705, water areas may be filled when consistent with a port master plan and when the proposed project is an allowable use. Under Section 30233(a), 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 proposed disposal of dredged material at the Northwest Slip, Berths 243-245, and at the Cabrillo Shallow Water Habitat expansion area is an allowable use under Section 30705(a)(1, 2, and 6). (The dredged materials arise from the Channel Deepening Project, previously approved by the Commission in consistency determinations CD-050-00 and CD-006-02.) Port Master Plan Amendment No. 24 was submitted to the Commission by the Port of Los Angeles in part for the proposed dredged material disposal locations and is scheduled to be heard by the Commission at its June 12, 2009, meeting. Commission certification of the master plan amendment designating the Northwest Slip, Berths 243-245, and the Cabrillo Shallow Water Habitat expansion area as dredged material disposal sites will provide the Commission the ability to concur with the subject consistency determination and find that the Corps' proposed disposal projects within the Port are consistent with the certified port master plan.

In determining the suitability of using Berths 243-245 as a confined disposal facility for contaminated dredged materials, the Final SEIS/R for the project also examined the potential historical significance of this location:

Berths 243-245 are located adjacent to the former Southwest Marine Shipyard which currently contains World War II era buildings and equipment (LAHD, 2006). In the LAHD's 2006 EIR for the Southwest Marine Terminal. The Port identified that the Southwest Marine Shipyard is eligible to be a historic district. The USACE has determined that the wharves at Berths 243-245, which would be demolished as a result of implementation of Alternative 1 of the Proposed Action, no longer retain integrity from their period of significance and are not contributors to the Southwest Marine National Register of Historic Places district and that use of these berths as a disposal site under the Proposed Action would not have an adverse effect on the district. USACE has requested the concurrence of the State Historic Preservation Officer of this determination in a letter dated March 16, 2009, which is included in Appendix J of the Final SEIS/SEIR.

The proposed disposal by the Corps of Engineers of dredged materials at Berths 243-245 is consistent with the Chapter 8 policies of the Coastal Act, including Section 30708, which give the highest priority to the use of existing land space within Chapter 8 harbors to port purposes. The proposed confined disposal facility and the resultant eight-acre landfill would assist in the completion of the previously-approved Port of Los Angeles Channel Deepening Project and

would provide upland area to support primary port activities. The Board of Harbor Commissioners of the Port of Los Angeles has determined that construction of a confined disposal facility and an eight-acre landfill at Berths 243-245 is the best use of this site given the port's long-term development plans for this area of Terminal Island. The Commission finds this fill an allowable use under Section 30705(a)(2).

The proposed disposal at LA-2 of dredged materials from the previously-approved expansion of Port of Los Angeles facilities is an allowable use under Section 30233(a)(1). LA-2 is an EPA-approved disposal site, and placement here is the least damaging alternative for disposal of the project's clean, fine-grained dredged materials, which are not suitable for beach replenishment due to grain size incompatibility and for which other beneficial reuse is not currently feasible. The Final SEIS/R for the project examined numerous disposal alternatives, but given the structural unsuitability of the subject 800,000 cu.yds., the Corps determined ocean disposal to be the least environmentally damaging alternative. The Commission previously found in CD-050-00 and CD-006-02 that the dredged sediments from the Channel Deepening Project which are now proposed for disposal at LA-2 were suitable for unconfined aquatic disposal and consistent with Section 30233(a); in this consistency determination the Commission reiterates that these materials are clean and suitable for disposal at LA-2 and the project is consistent with Section 30233(a).

As discussed further in Section B, below, the proposed project will have no significant impacts on water quality and marine 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 fill policies of the California Coastal Management Program (CCMP; Coastal Act Sections 30705, 30706, and 30233(a)).

B. Water Quality and Marine Resources. For proposed development within the jurisdictional boundary of the Port of Los Angeles, the Chapter 8 policies of the Coastal Act are the standard of review. 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. . . .

For the proposed disposal of dredged materials at the LA-2 ocean disposal site (located outside the jurisdictional boundary of the Port of Los Angeles), the following Coastal Act Chapter 3 policies are the standard of review:

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

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

30233(b).

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

1. WATER QUALITY.

Water quality issues associated with the proposed disposal of dredged materials from the previously-approved Channel Deepening Project are examined in this staff report from three perspectives: (1) water quality protection measures to be implemented during disposal operations; (2) analysis of water quality and water circulation monitoring information compiled after completion of the 54-acre westward addition to the Cabrillo Shallow Water Habitat area, authorized by the Commission in consistency determination CD-050-00 and CD-006-02 as part of the Channel Deepening Project; and (3) analysis of ongoing efforts to address water quality problems at Cabrillo Beach.

The April 2009 Final Supplemental EIS/EIR for the proposed dredged material disposal project documents in great detail the existing water quality conditions in the Port of Los Angeles and examines the potential project impacts and proposed mitigation measures to protect water quality in and adjacent to the proposed disposal sites. In addition, the Commission's adopted findings for consistency determinations CD-050-00 and CD-006-02 provide information on the water quality monitoring program and water quality protection commitments made by the Corps of Engineers for the Channel Deepening Project, which will remain in effect during the proposed disposal operations and until the Channel Deepening Project is completed. The aforementioned documents are incorporated by reference into this report.

(a) Water Quality Protection Measures. The Corps and the Port will monitor water quality during dredge and disposal operations to ensure compliance with the Los Angeles Regional Water Quality Control Board's waste discharge requirements for the disposal of clean and contaminated dredged sediments. The April 2009 Final SEIS/EIR for the proposed project examined monitoring results of earlier Channel Deepening Project dredged and disposal operations:

The water quality of Los Angeles Harbor would be temporarily impacted during dredging and disposal operations, including short-term increases in turbidity, decreases in DO and pH, increases in nutrients, and increases in contaminants in areas where contaminated sediments occur. Extensive water quality monitoring was conducted during dredging and placement of dredge materials in the Port Pier 400 project area. This monitoring was required by the LARWQCB and included weekly, monthly and quarterly activities. As recommended by protocols set forth in the CSTF's Los Angeles Regional Contaminated Sediment Long Tern Management Strategy, monitoring stations were located 100 feet upcurrent, and 100 and 300 feet downcurrent of each dredge and disposal operation, as well as at fixed stations in the outer harbor (Anchor, Everest, and AMEC, 2005). Dissolved oxygen, light transmittance, temperature, pH and contaminants were monitored. This

monitoring failed to detect any impacts to water quality in the outer harbor as a result of dredging or disposal activities (USACE, 2000). Therefore, temporary water quality impacts are not expected to occur more than approximately 300 feet from the project sites.

The May 2009 Contaminated Sediment Management Plan prepared for the proposed project examines the suitability of the project's three million cu.yds. of dredged sediments for unconfined aquatic disposal and concluded that except for 170,000 cu.yds. of contaminated sediment from several berthing areas (Berths 243-245, 125-131, 136-137, 212-215, and 220-221), the proposed dredged sediments are suitable for unconfined aquatic disposal at the Northwest Slip, the CSWH expansion area, and the LA-2 ocean disposal site:

Sediments within the proposed project have been characterized and the testing results have been reported in the report titled, "Environmental Evaluation of Sediments, Port of Los Angeles 2006 Marine Exploration Program, Volume II. Berth Deepening, Fill Sites, Cerritos Channel Widening, and Consolidated Slip Remediation (Kinnetic Laboratories Inc./Fugro West, 2007)." Except for dredged material units identified above that contain [170,000 cu.yds. of] contaminated materials, all sediments tested were judged to be suitable for open water disposal and for use as fill material. The upper-layer, finer grained materials that were judged not to be contaminated are less desirable as fill, but could be used either for fill or disposed of at an approved open water site.

Elutriate chemistry and/or suspended phase bioassay results on these materials indicated that water quality impacts would not be expected during open water disposal, or from decant water from a confined landfill disposal area assuming normal operating procedures and proper design of the disposal area to control suspended solids (turbidity). These conclusions (Kinnetic Laboratories/ToxScan 1997; 2001a) are based upon the fact that elutriate results compared to ambient water quality standards and/or toxicity results from suspended phase testing indicated that little to no dilutions would be required for discharge into harbor receiving waters.

The Advisory Committee of the Los Angeles Region Contaminated Sediment Task Force met on May 12, 2009, to discuss the proposed confined disposal facility (CDF) at Berths 243-245 and the management of project sediments determined to be unsuitable for open water disposal. Representatives from the U.S. Army Corps of Engineers, Port of Los Angeles, U.S. EPA, Los Angeles Regional Water Quality Control Board, California Coastal Commission, California Department of Fish and Game, and Heal the Bay participated in the meeting. The Committee members discussed the proposed completion of the Channel Deepening Project (CDP), the need for a disposal site for contaminated sediments to be dredged from several locations in the Port of Los Angeles, the May 2009 CDP Contaminated Sediment Management Plan (CSMP) Addendum 2, CDF location and design, water quality monitoring criteria, and the proposed management of the approximately 170,000 cu.yds. of contaminated sediments (dredging, transport, disposal, and permanent containment). The Advisory Committee will review at a later date the final design of the CDF to assure that commitments included in the CSMP Addendum 2 are incorporated into the CDF construction documents. At the conclusion of the meeting the Advisory Committee

concurrent with the implementation of the proposed Berths 243-245 Confined Disposal Facility for contaminated sediments and with the CSMP Addendum 2 (**Exhibit 13**).

Water quality in the Northwest Slip, Berths 243-245, the Cabrillo Shallow Water Habitat expansion area, and the LA-2 ocean disposal site would be affected during disposal 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 may 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 disposal operations.

Extensive water quality monitoring conducted during the Pier 400 Deep Draft Navigation Improvement Project and earlier phases of the Channel Deepening Project, including dredging and disposal of sediments of similar physical, chemical, and locational characteristics when compared to sediments proposed for disposal in this project, failed to detect any significant, adverse, long-term impacts to water quality in the Port of Los Angeles or at LA-2 as a result of disposal operations. The Commission anticipates the same results for the similar inner and outer harbor and LA-2 disposal operations proposed to complete the Channel Deepening Project.

(b) Water Quality and Circulation at Cabrillo Shallow Water Habitat. The Commission has previously approved three Corps of Engineers consistency determinations regarding the Cabrillo Shallow Water Habitat (CSWH) area inside the San Pedro Breakwater: the original 192-acre CSWH (CD-057-92); one 87-acre eastward expansion (CD-002-97), and one 54-acre westward expansion (CD-050-00). The subject consistency determination proposes a 50-acre northward expansion of the CSWH. In Corps of Engineers consistency determination CD-006-02 for Phase 2 of the Channel Deepening Project, the Commission examined the potential impacts on water quality and water circulation at and immediately offshore of inner Cabrillo Beach from construction of the CSWH westward expansion included in CD-050-00.

As a part of that effort, the Commission reviewed the Corps' February 2002 Water Quality and Hydrodynamic Analysis of the Cabrillo Beach Shallow Water Habitat report, which analyzed four modeling scenarios in an effort to determine potential water circulation changes, and the inferred water quality effects, from several shallow water habitat development proposals. The report included 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. The Commission ultimately found in CD-006-02 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 (concurrent with by the Commission in CD-050-00 in July 2000) does not and will not generate significant adverse impacts on water circulation or water quality at Cabrillo Beach and adjacent offshore areas.

In addition, the Commission also found that the post-project water quality monitoring program for the area between Cabrillo Beach and the Main Channel would generate the technical information needed to confirm or disprove the results of the aforementioned water circulation and quality modeling results for this area, and will provide the Commission with the ability to ensure that CSWH components will not over time adversely affect water quality and related recreational resources in this area. Construction of the 54-acre westward expansion of the CSWH area began in January 2003 and was completed in December 2004. The Port states that the results of the Channel Deepening Project water quality monitoring that took place prior to, during, and subsequent to construction of the CSWH expansion area, and in particular, the history of bacterial exceedances at inner Cabrillo Beach, indicate that the expansion area is not the source of the water quality problem at this beach (**Exhibits 14 and 15**).

The Corps submitted with the subject consistency determination the April 2008 Circulation and Water Quality Modeling in Support of Deepening the Port of Los Angeles: Alternative Disposal Sites report prepared by the Corps' Engineer Research and Development Center. This report was developed to investigate the potential effect of channel deepening and in-harbor disposal of dredged material (including the proposed CSWH northward expansion) on circulation and water quality in the Port of Los Angeles. One of the project alternatives examined in this modeling study was a proposed project comprised of the Northwest Slip landfill, the Berths 243-245 landfill, a 50-acre northward expansion of the CSWH, and a 40-acre eelgrass restoration site adjacent to the existing CSWH. This alternative is similar to the proposed project in the subject consistency determination, except for the eelgrass restoration site, which is not an element of the proposed project. The project Final SEIS/EIR referred to the aforementioned April 2008 report and states in the water quality and oceanography section that:

. . . increased bottom current velocities and the formation of an eddy would occur immediately to the west of the CSWH Expansion Area in the vicinity of Inner Cabrillo Beach. Most changes in residual currents would be on the order of 0.1 cm/sec. Due to the localized and small changes in current velocities when compared to baseline conditions, the predicted changes in water movement were considered to be less than significant and impacts to the overall circulation system in the POLA would not produce a substantial change in currents or direction of water flow.

The April 2008 report concluded that:

. . . from both hydrodynamic and water quality perspectives, there were no significant adverse impacts to POLA due to the . . . [proposed alternative]. Differences in residual hydrodynamic flows were relatively minor and localized. Minor differences occurred for all water quality constituents. The DO [dissolved oxygen] concentrations for all alternatives in Phase 4 never decreased more than 5 percent relative to the Base. This decrease in DO concentrations is considered insignificant, posing no threat to aquatic life.

The April 2008 report conclusions are similar to previous modeling predictions and monitoring results. That is, the CSWH and subsequent expansions have not adversely affected water

circulation patterns or water quality in the outer harbor, including the area between the CSWH and Cabrillo Beach. As noted previously in this report, the Corps of Engineers will continue to implement the construction and post-construction water quality monitoring program that is incorporated into the overall Channel Deepening Project. While previous expansions of the CSWH have not adversely affected water circulation and water quality in the area between the Main Channel and Cabrillo Beach, and modeled predictions were confirmed by subsequent monitoring, the Corps will continue to undertake the necessary monitoring of water circulation and water quality in order to confirm or disprove the current modeling predictions contained in the April 2008 report. As in previous consistency determinations concurred with by the Commission for the Channel Deepening Project, the commitment by the Corps to monitor this area for potential changes in water quality characteristics as a result of the construction of the CSWH northward expansion provides the Commission with the ability to ensure that this project component will not over time adversely affect water quality and recreational resources in this area.

(c) Cabrillo Beach Water Quality Improvement Program. Notwithstanding the determination by the Corps of Engineers that the CSWH has not adversely affected water quality and circulation at inner Cabrillo Beach, the Corps and the Port of Los Angeles have long acknowledged that Cabrillo Beach suffers from poor water quality and, in particular, high levels of bacterial contamination that contribute to an unhealthy recreational environment. While the proposed Corps of Engineers project does not include any specific Cabrillo Beach bacterial remediation measures, the following discussion provides background information on the historic and ongoing work by the Port of Los Angeles (concurrent with construction of the Channel Deepening Project) to address this water quality problem.

In March 2003, prior to the start of construction of the westward expansion of the CSWH, the Port initiated work to identify and eliminate the sources of bacterial contamination at Cabrillo Beach. At the same time the Port began working with the Los Angeles Regional Water Quality Control Board (RWQCB) to develop a bacterial TMDL² program for this area. Building on historic and ongoing water quality monitoring data, and with funding from the State Water Resources Control Board's Clean Beach Initiative for additional water quality monitoring, the Port developed a bacteria source identification and elimination project, with a primary goal to identify onshore and offshore/water column sources of bacteria. While no offshore sources were identified, numerous onshore sources were documented, including leaking sewer pipes and dry-weather storm flows.

In 2004 the RWQCB required the Port to comply with a bacterial TMDL order. The Port responded by developing a tiered program to improve water quality at Cabrillo Beach (**Exhibit 16**). The Port undertook and continues to implement numerous TMDL Tier 1 and 2 actions to address bacterial contamination at Cabrillo Beach including the rebuilding of leaky sanitary sewers in the area, diverting dry-weather flows away from the beach, and removing an old ocean outfall holding contaminated water. It also determined that the Cabrillo Beach materials,

² TMDL: Total Maximum Daily Load. A regulatory term in the federal Clean Water Act describing a value of the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards for the uses of that body of water.

comprised of fine-grained silts and clays with a thin sand surface layer, were serving as a bacterial reservoir and contributing to the bacterial exceedances in the adjacent waters. As a result, the Port is completing a project to replace the beach materials with coarse-grained sands and to recontour the beach to prevent ponding and improve drainage. The Port is also preparing to re-install bird exclusion devices which in the past appeared to reduce avian-related sources of bacteria at the beach, and to remove a rock groin at the adjacent boat launching ramp to improve water circulation along the beach. These actions are scheduled for completion in June 2009.

However, the numerous on-shore remedies have not adequately improved water quality at Cabrillo Beach. In 2008 the RWQCB issued a notice of violation to the Port for not complying with the 2004 TMDL order and directed the Port to develop a Tier 3 program, including the use of submerged water pumps to improve circulation in the waters offshore of the beach. The Port experimented with a small pump to improve water flushing and mixing along the beach face, but this project did not generate satisfactory results. In developing a Tier 3 program, the Port is further investigating artificial circulation enhancement alternatives, including using more and larger pumps.

A potential source of the bacterial exceedances may be the eelgrass bed that is located just offshore of Cabrillo Beach. Eelgrass is a rooted aquatic plant that inhabits shallow, soft bottom habitats in quiet waters of bays and estuaries. In the Port of Los Angeles, eelgrass beds are found on the east side of Pier 300, in Seaplane Lagoon, and offshore of inner Cabrillo Beach. Eelgrass was planted at this latter location sometime in the 1970s without regulatory approval or oversight; over time it expanded to its current size of between 40 and 50 acres approximately 100 feet offshore at high tide. Recent diver surveys conducted by the Port documented continuous, dense eelgrass beds that appear to interfere with tidal and wind circulation in the shallow water between the eelgrass beds and Cabrillo Beach. The eelgrass beds, due to the continued production and decaying of rich organic matter, may be a source of bacteria to the sheltered waters between the beds and the beach. This, in combination with the reduced circulation in these waters due to the close-in physical location of the beds, could be a factor in the ongoing and so far intractable bacterial exceedances at Cabrillo Beach.

Some alteration to the existing eelgrass beds might provide a partial solution to the water quality/circulation problem, and hydrologic modeling of potential alternative manipulations of the beds might generate useful data towards solving this problem. However, the potential land/water use conflict between sensitive marine biological habitat and the only sheltered-water beach in the Port of Los Angeles, a beach long-used by and easily accessible to residents of the surrounding communities of San Pedro and Wilmington, may not be one that is easily resolved. A permanent, workable solution to the bacterial exceedance problem at Cabrillo Beach will require continued biological and engineering analyses by the Port of Los Angeles, Corps of Engineers, and other agencies in order to ensure that decisions to resolve the water quality problem adequately take into account the Coastal Act requirements to ensure clean, safe recreational waters and protect valuable marine habitat.

2. MARINE RESOURCES.

The proposed disposal of dredged materials generated by the completion of the previously-approved Channel Deepening Project hold the potential to affect environmentally sensitive open water habitat at several locations in the Port of Los Angeles. The Final SEIS/EIR for the proposed project states that marine biological resources in the Los Angeles/Long Beach harbor complex have been studied in detail during the last 30 years and described in numerous project-related environmental documents over that same time period. Concurrently, state and federal resource agencies, along with the Ports of Los Angeles and Long Beach, conducted periodic evaluations of harbor marine resources in order to establish appropriate habitat mitigation values for port development projects. The Final SEIS/EIR reports that substantial improvements in habitat quality associated with improved water quality in the harbor occurred in the 1970s and 1980s, and further improvements have occurred since that time, albeit at a slower pace. The most significant change in habitat types in the harbor has been the expansion of eelgrass habitat in the shallow soft bottom habitats of the Outer Harbor, offshore of inner Cabrillo Beach.

Marine habitat in the three proposed fill areas is comprised of deep water, soft-bottom habitat; the rock rip rap, pilings, and concrete or sheetpile walls along existing harbor uplands that border the proposed fill sites also provide narrow areas of hard substrate habitat. These areas support a wide assemblage of benthic infauna and epifauna invertebrates, plankton, and fish, with more diversity of organisms present in the outer harbor than in the channels, basins, and slips of the inner harbor. In the Northwest Slip, sediments deposited from storm drain runoff have accumulated along the existing landfill shoreline at Berths 134-135. Scattered pickleweed plants have opportunistically colonized an approximately 1,830 sq.ft. area at this location. The Final SEIS/EIR and the Port of Los Angeles Environmental Management Division states that the pickleweed cover is sparse to moderate, the plants exist amidst concrete rubble, rock rip rap, and trash, and that the pickleweed plants provide no wetland habitat or productive value at this location. Small kelp beds and scattered kelp plants are present on the existing containment dike for the Cabrillo Shallow Water Habitat area. Outer and inner harbor waters adjacent to the proposed fill areas also provide foraging habitat for the endangered California least tern and California brown pelican, and the least tern nests on the southern tip of Pier 400 in the outer harbor.

The Final SEIS/EIR for the project summarizes the potential impacts to environmentally sensitive marine habitat and species as a result of the proposed dredged material disposal in the Port of Los Angeles:

- Impacts from the construction of landfills at the Northwest Slip and Berths 243-245 would be less than significant because no loss of individuals or a substantial reduction of habitat for the California least tern, marine mammals, or other special status species would occur, nor would loss of any critical habitat for federally listed species occur.
- Construction activities in the immediate vicinity of the Cabrillo Shallow Water Habitat (CSWH) for construction of the expansion area have the potential to adversely affect California least tern foraging by causing a decline in the availability of forage fish or the

ability of least terns to find forage fish during the nesting season due to construction-related turbidity within the adjacent CSWH and surrounding areas. Construction would affect approximately 6.5 acres (1.3 percent) of the 519 acres of existing shallow water California least tern foraging habitat available within the Harbor at any time during concurrent construction of the CSWH expansion area. Thus, impacts would be less than significant. Nevertheless, based on informal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act, to ensure that construction-related turbidity would not adversely affect California least terns, mitigation measures **BIO-1, -2, and -3** (below) are incorporated into the project.

- Impacts to the California brown pelican would be less than significant because, as described above, foraging would not be affected with implementation of project mitigation measures **BIO-1, -2, and -3**.
- The permanent loss of 1,830 sq.ft. of pickleweed habitat from fill placement in the Northwest Slip would have no significant ecological effects due to small amount and fragmented distribution of plants in this area, as well as isolation from other wetlands. However, since this is a plant community of special concern and a wetland, impacts are considered locally significant but feasibly mitigated, with implementation of project mitigation measure **BIO-4**.
- Loss of 12.4 acres of marine habitat due to construction of new landfills at Berths 243-245 and the Northwest Slip and would be a significant impact prior to mitigation. The loss of marine habitat would be mitigated through the use of credits available from the Bolsa Chica mitigation bank. Credit in this bank may be used to mitigate for loss of inner harbor habitat in the POLA at a ratio of 0.5 mitigation credit for every acre of inner harbor fill. Therefore, 6.2 mitigation credits are required for the proposed 12.4 acres of landfill. Currently there are 88 mitigation credits remaining in the Bolsa Chica mitigation bank. Implementation of project mitigation measure **BIO-5** will address the loss of marine habitat in the inner harbor. No net loss of marine habitat would result from the conversion of deep water habitat to shallow water habitat within the 50-acre CSWH expansion area and no mitigation is required for this activity.

The following are the mitigation measures referenced in the above analysis of potential project impacts on sensitive marine habitat and species, and which are incorporated into the proposed project:

- **BIO-1. Limit Turbidity Plume.** Unless specifically allowed by the USFWS, as appropriate, the LAHD/USACE shall not allow turbidity from the dredge and fill activities to extend over greater than 6.5 acres of shallow (i.e., less than 20 feet deep) Outer Harbor waters during the April-to-September nesting season of the California least tern. This requirement shall be monitored as provided for in mitigation measure BIO-2 below and shall be based on visually observed differences between ambient surface water conditions and any dredging turbidity plume.

- **BIO-2. California Least Tern Monitoring.** The LAHD/USACE shall provide a qualified California least tern biologist, acceptable to the USFWS and CDFG, as appropriate, to monitor and manage known California least tern colonies foraging in the immediate vicinity of the existing Cabrillo Shallow Water Habitat during the nesting season. This program shall be carried out for up to one year following construction of the last element of the Port of Los Angeles Channel Deepening Project. The biologist shall coordinate with CDFG and USFWS, pursuant to the existing California least tern MOA (LAHD et al., 2006) and shall:
 - a) Monitor nesting and fledgling success of the California least tern colony and provide an annual report in the format provided in previous years.
 - b) Provide an education program for construction crews regarding the identity of the California least tern and their nests, restricted areas and activities, actions to be taken if California least tern nesting sites are found outside the designated California least tern nesting sites (e.g., Southwest Slip surcharge area).
 - c) Assist the USFWS and CDFG in predator control, prior to and during the California least tern nesting season and during the construction period.
 - d) Visually monitor and report to USACE field representative and Environmental Resources Branch biologist any turbidity from project dredging which extends over greater than 6.5 acres of shallow Outer Harbor waters.
- **BIO-3. Protect California Least Tern Nesting Sites.** If California least tern nests are found outside of the known California least tern colonies during construction, the biologist shall determine the affected area and notify the USACE field representative and Environmental Resources Branch biologist, and USACE shall halt work as appropriate. The USACE shall notify the USFWS and CDFG immediately. The USACE will then determine any potential effect to the California least tern and consult with the USFWS pursuant to Section 7 of the ESA as appropriate.
- **BIO-4. Transplant Pickleweed.** Pickleweed in areas to be filled at the Northwest Slip shall be salvaged prior to filling and replanted at a 1:1 mitigation ratio in suitable habitat in the harbor or off site. A final mitigation plan consistent with USACE habitat mitigation and monitoring guidelines will be prepared prior to permit issuance and the Record of Decision for the Proposed Action.

(Note: This mitigation proposal is similar to one concurred with by the Commission in CD-050-00 (Corps of Engineers, Channel Deepening Project Phase 1), where sparse and low-quality pickleweed plants within a 4,500 sq.ft. area of the Southwest Slip landfill were salvaged and transplanted to the Cabrillo Salt Marsh and other sites, in coordination with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game.)

- **BIO-5. Apply Mitigation Credits.** The POLA shall offset the loss of marine habitat from the Berths 243-245 disposal site and the Northwest Slip by using existing mitigation credits from the Bolsa Chica Mitigation Bank, in accordance with the provisions of the

memorandum of Agreement governing its use. The loss of 12.4 acres of Inner Harbor Habitat from Berths 243-245 and the Northwest Slip would require 6.2 credits (acres) (calculated at 0.5 credits per acre of Inner Harbor habitat lost) from that bank.

With the above mitigation, the Commission finds that the proposed disposal of dredged materials from the previously-approved Channel Deepening Project at three locations in the Port of Los Angeles will not adversely affect marine habitat. The project will remove contaminated sediments from the marine environment, where they are currently exposed to the aquatic food chain, and isolate those materials in a confined disposal facility. Previously-approved confined disposal facilities for contaminated sediments constructed in the Ports of Los Angeles and Long Beach (similar in design to the proposed facility at Berths 243-245) have successfully removed such materials from the harbor environment without creating adverse effects on environmentally sensitive habitat during dredging, transport, disposal, or confinement operations.

The project will also create additional soft bottom, shallow water habitat in the outer harbor adjacent to the existing Cabrillo Shallow Water Habitat area. Re-colonization of the 50-acre shallow water expansion area with benthic invertebrates, plankton, and fish is expected to take between two to three years, and will provide a more diverse and productive habitat than currently exists at this deep-water site. Construction of shallow water habitat areas at the Cabrillo, Pier 300, and Pier 400 locations in the Port of Los Angeles using dredged materials from the Pier 400 Landfill Project and the Channel Deepening Project were successful in creating biologically diverse and productive shallow water areas.

3. CONCLUSION. The Commission finds that the proposed disposal of dredged materials to complete the previously-approved Channel Deepening Project in the Port of Los Angeles will generate only minor, short-term effects on water quality and marine resources in the Port and at the LA-2 ocean disposal site. 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 disposal sites, the permanent containment of contaminated sediments, and the water quality protection measures incorporated into the project. Proposed dredged material disposal at the Northwest Slip, Berths 243-245, and the CSWH expansion area will not generate significant, adverse effects on environmentally sensitive marine habitat in the Port of Los Angeles. The project includes mitigation measures to protect California Least tern and California brown pelican foraging areas, protect California least tern nesting activities, replace pickleweed habitat lost at the Northwest Slip, and apply existing mitigation credits to offset the loss of deepwater marine habitat from landfills in the Northwest Slip and Berths 243-245. With these measures, and with the commitment by the Corps of Engineers for continuing implementation of the water quality and marine resource protection measures incorporated in the previously-approved Channel Deepening Project consistency determinations (CD-050-00 and CD-006-02), the Commission finds that the proposed project is consistent with the water quality and marine resource protection policies of the CCMP (Coastal Act Sections 30705, 30706, 30708, 30230, 20331, and 30233(b)).

C. Recreation. The Coastal Act provides the following:

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. . . .

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

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

Dredged materials from the Channel Deepening Project would be disposed at the Northwest Slip, Berths 243-245, the LA-2 ocean disposal site (located approximately six miles offshore of the Port of Los Angeles), and the Cabrillo Shallow Water Habitat expansion area. Project disposal activities within the Port of Los Angeles must be consistent with the recreational policies in Sections 30706 and 30708 of the Coastal Act; disposal at LA-2 must be consistent with the recreational policies of Sections 30220 and 30234.5.

The Northwest Slip and Berths 243-245 are not recreation areas due to the existing cargo and industrial uses that occur at and adjacent to these sites. No public access or recreation impacts will occur during the disposal of dredged materials at these two locations. 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 during disposal operations but these restrictions would be temporary and insignificant.

Construction of the proposed 50-acre expansion of the Cabrillo Shallow Water Habitat (CSWH) area would generate temporary effects on public recreation in adjacent waters, could slightly

restrict the water area available for sailing, and would provide additional shallow water area for recreational fishing. The Final SEIS/R for the proposed project states that:

The presence of equipment and vessels for the transportation and disposal of dredged sediment would require localized closures and restrictions around work equipment and disposal sites. In addition, turbidity would be created during construction of dikes and disposal of sediment. Transport and disposal of sediment would therefore displace some recreational boaters in the vicinity of transport and disposal equipment due to closures and restrictions, and could create poor conditions for some recreational activities, such as swimming or fishing, due to the creation of turbidity. However, only the Outer Harbor area in the vicinity of the CSWH Expansion Area would be affected by these impacts as it is the only area of the Port that supports any substantial recreational activities. These impacts would diminish the quality of some recreational activities, but similar to dredging, this would cause only a minor loss or diminishment to quality because closures, restrictions, and increased turbidity are temporary, and main transit lanes and most boating areas would still be accessible to recreational boaters . . .

Although this alternative [the proposed project] would decrease the depth of a 50-acre area adjacent to the existing CSWH from approximately -40 feet MLLW to -15 feet MLLW, the final depth of -15 feet MLLW would still allow passage of recreational vessels . . .

It should be noted however, that kelp currently grows in a band along the submerged rock dike of the existing CSWH, which precludes the use of this area for recreational sailing. It is possible that kelp would also grow along the submerged rock dike of the proposed CSWH Expansion Area, thereby incrementally decreasing the amount of area available for sailing in the outer harbor, but no other types of recreational boating. However, construction of the CSWH Expansion would provide 50 acres of improved habitat for fish species, therefore enhancing and creating more recreational fishing opportunities.

The disposal of dredged material to create the CSWH expansion area will generate only temporary and minor effects on recreational boating and fishing at this location.

The Final SEIS/R for the proposed project also examines the public recreational opportunities available at Cabrillo Beach, located west of the existing Cabrillo Shallow Water Habitat area:

A heavy concentration of recreational activities is found at the Cabrillo Beach recreational complex, which is located along the southwest boundary of the Port. The outer beach, which faces the ocean, is used for swimming, wind surfing, surf fishing, and surfing (USACE, 2000). The inner beach, which lies within the breakwater, is used for sunbathing, beachcombing, wind surfing, swimming, and wading (USACE, 2000). The Cabrillo Beach Boat Launch Ramp is located at the end of Shoshonean Road at 34th Street; the offshore area between the boat launch and the San Pedro Breakwater is used for board sailing and jet skiing. The complex also includes 1,100 pleasure craft slips.

In 1992 the Commission approved construction of the initial 192-acre CSWH area (CD-057-92), located inside the San Pedro Breakwater and serving as mitigation for the loss of open water habitat from the construction of the Pier 400 landfill. Subsequently, the Commission approved an 87-acre eastward expansion of the CSWH (CD-002-97), and a 54-acre westward expansion (CD-050-00). In these actions, the Commission found that the disposal of clean dredged materials to create shallow water habitat in this area of the outer harbor would not adversely affect public recreational activities at and adjacent to Cabrillo Beach. The Commission found that additions to the CSWH would not cause significant changes in water circulation patterns or degradation in water quality at and offshore of Cabrillo Beach. The proposed 50-acre northward expansion of the CSWH, and the potential effects on water quality and circulation in the waters offshore of Cabrillo Beach, were analyzed previously in Section B of this report (Water Quality and Marine Resources). The Commission found that the proposed project would not create adverse effects on water quality and would therefore not adversely affect recreational activities at and offshore of Cabrillo Beach.

The Commission has concurred with consistency determinations and certifications for dredged material disposal at LA-2 for over 25 years. In those reviews, the Commission determined that dredged material disposal has not significantly affected commercial and recreational fisheries or recreational boating in the ocean waters adjacent to LA-2 or in the transit paths between southern California dredging sites and LA-2. In addition, the Commission found in its June 2005 concurrence with USEPA's consistency determination (CD-065-05) for an increased maximum annual dredged material disposal quantity at LA-2 that:

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

Given the existing limitations on the use of the LA-2 ocean disposal site and the monitoring of that site, the proposed disposal at LA-2 of approximately 800,000 cu.yds. of clean, fine-grained dredged materials from the Channel Deepening Project in 2009 and 2010 will not adversely affect offshore recreational boating and fishing activities.

In conclusion, the Commission finds that the proposed dredged material disposal operations within the Port of Los Angeles and at the LA-2 ocean disposal site will not adversely affect public recreational activities at these locations, and are consistent with the public recreation and recreational fishing and boating policies of the CCMP (Coastal Act Sections 30706, 30708, 30224, and 30234.5)

D. Sand Supply. 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:

. . .

(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

The Corps of Engineers proposes to dispose up to three million cu.yds. of dredged material at the Northwest Slip, Berths 243-245, the Cabrillo Shallow Water Habitat expansion area, and at the LA-2 ocean disposal site. Approximately 170,000 cu.yds. of the dredged materials are unsuitable for unconfined aquatic disposal and will be placed in a confined disposal facility to be constructed at Berths 243-245. While all of the dredged materials would be disposed at locations that would not contribute to beach replenishment, sediment analysis previously completed for the Channel Deepening Project indicated that these materials are not suitable for beach replenishment due to the predominately small grain size of the sediments. Since the material is primarily 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. In conclusion, the Commission finds that the three million cu.yds. of dredged material are not suitable for beach replenishment, and that the proposed disposal of this material at the Northwest Slip, Berths 243-245, the Cabrillo Shallow Water Habitat expansion area, and the LA-2 ocean disposal site is consistent with the sand supply policy of the CCMP (Coastal Act Section 30706).

Substantive File Documents:

1. Port of Los Angeles Port Master Plan (as amended), Port of Los Angeles.
2. Final Supplemental Environmental Impact Statement/Supplemental Environmental Impact Report, Port of Los Angeles Channel Deepening Project, U.S. Army Corps of Engineers and Port of Los Angeles, April 2009.
3. Circulation and Water Quality Modeling in Support of Deepening the Port of Los Angeles: Alternative Disposal Sites, U.S. Army Corps of Engineers, Engineer Research and Development Center, April 2008.
4. Contaminated Sediment Management Plan Addendum 2, U.S. Army Corps of Engineers and Port of Los Angeles, May 2009.

5. Water Quality and Hydrodynamic Analysis of the Cabrillo Beach Shallow Water Habitat, U.S. Army Corps of Engineers, February 2002.
6. Consistency Determinations CD-057-92 and CD-002-97 (Corps of Engineers: Port of Los Angeles Deep Draft Navigation Improvement Project, Stages 1 and 2, respectively).
7. Consistency Determinations CD-050-00 and CD-006-02 (Corps of Engineers: Port of Los Angeles Channel Deepening Project, Phases 1 and 2, respectively).
8. Consistency Determination CD-115-96 (U.S. Fish and Wildlife Service, Bolsa Chica Lowlands Acquisition, Conceptual Restoration Project, and Mitigation Credit Program).

PORT OF LOS ANGELES CHANNEL DEEPENING PROJECT
Summary

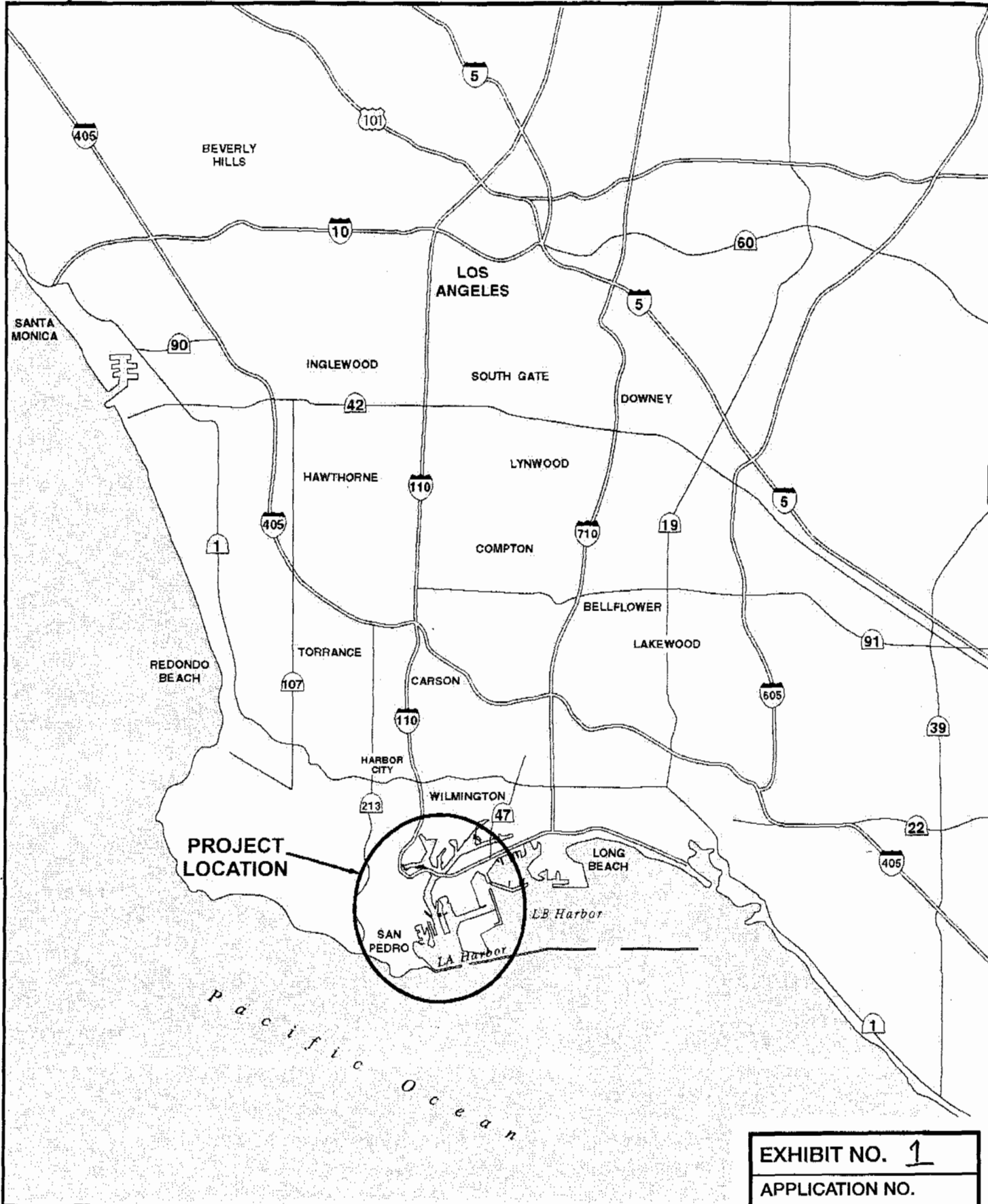


EXHIBIT NO. <u>1</u>
APPLICATION NO.
<u>CD-046-08</u>

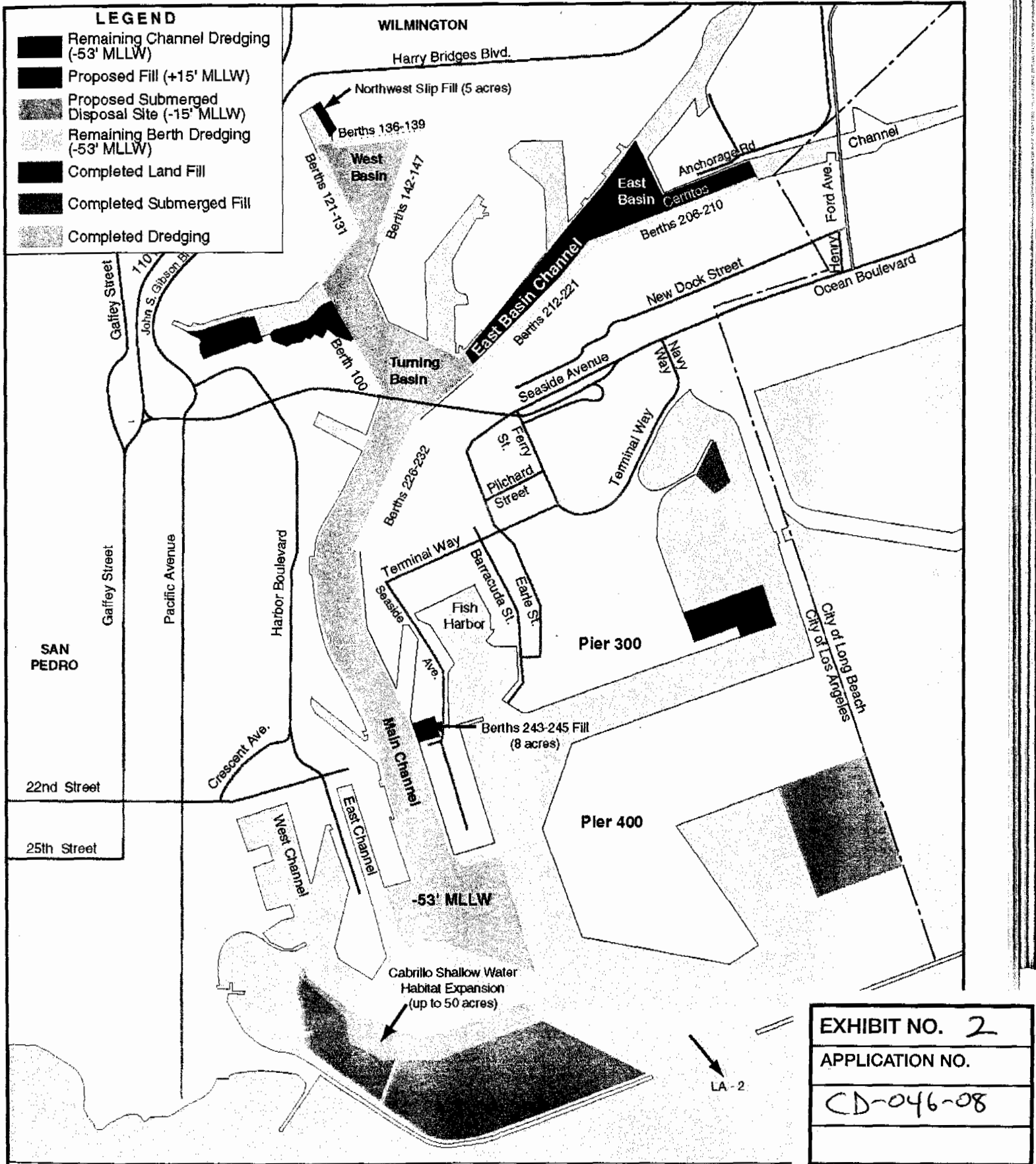


Figure S-2
Alternative 1:
Port Development and Environmental Enhancement

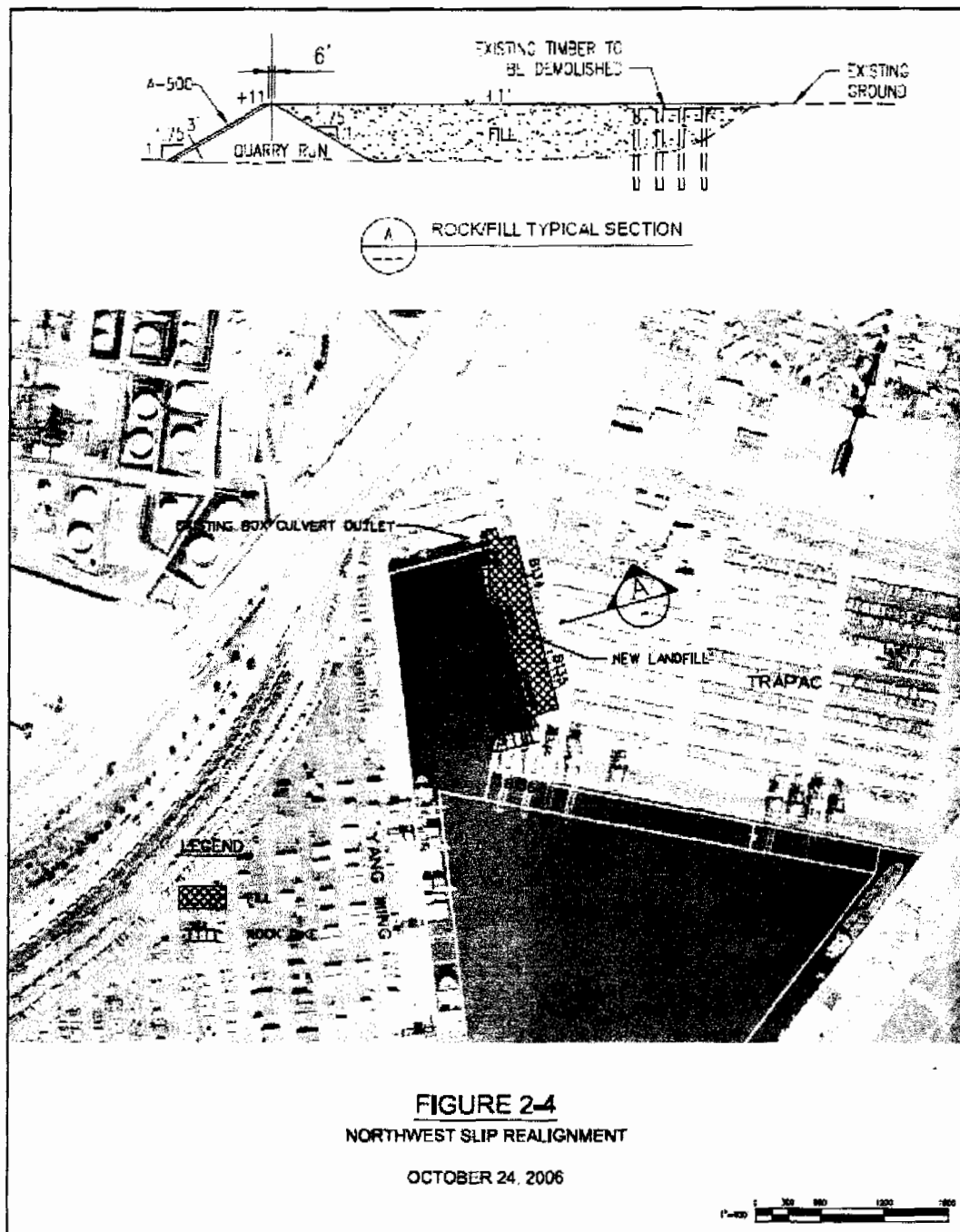
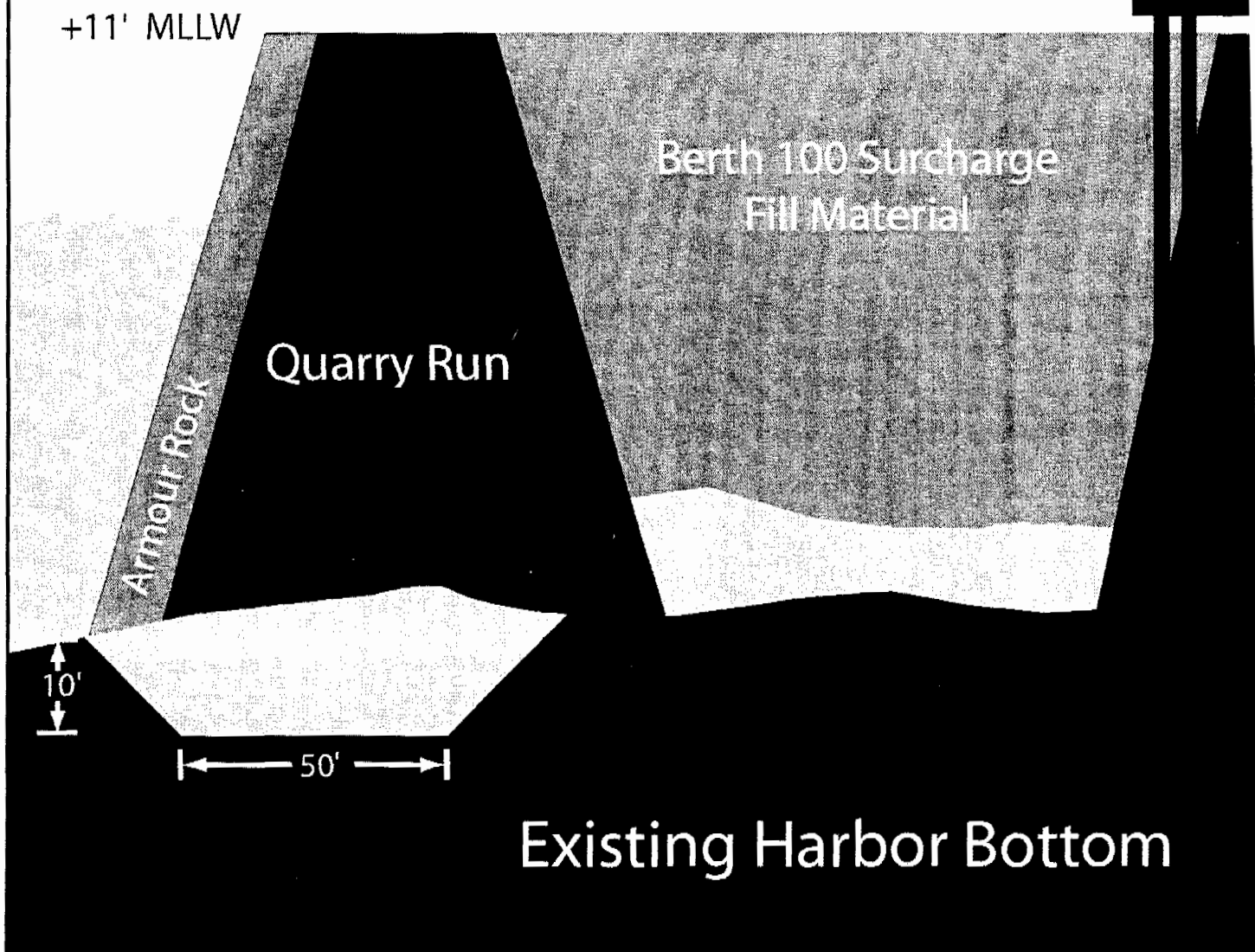


Figure 3 - Northwest Slip Fill

EXHIBIT NO. 3

APPLICATION NO.

CD-046-08



Not to Scale

EXHIBIT NO. 4

APPLICATION NO.

CD-046-08

Northwest Slip Cross-Section

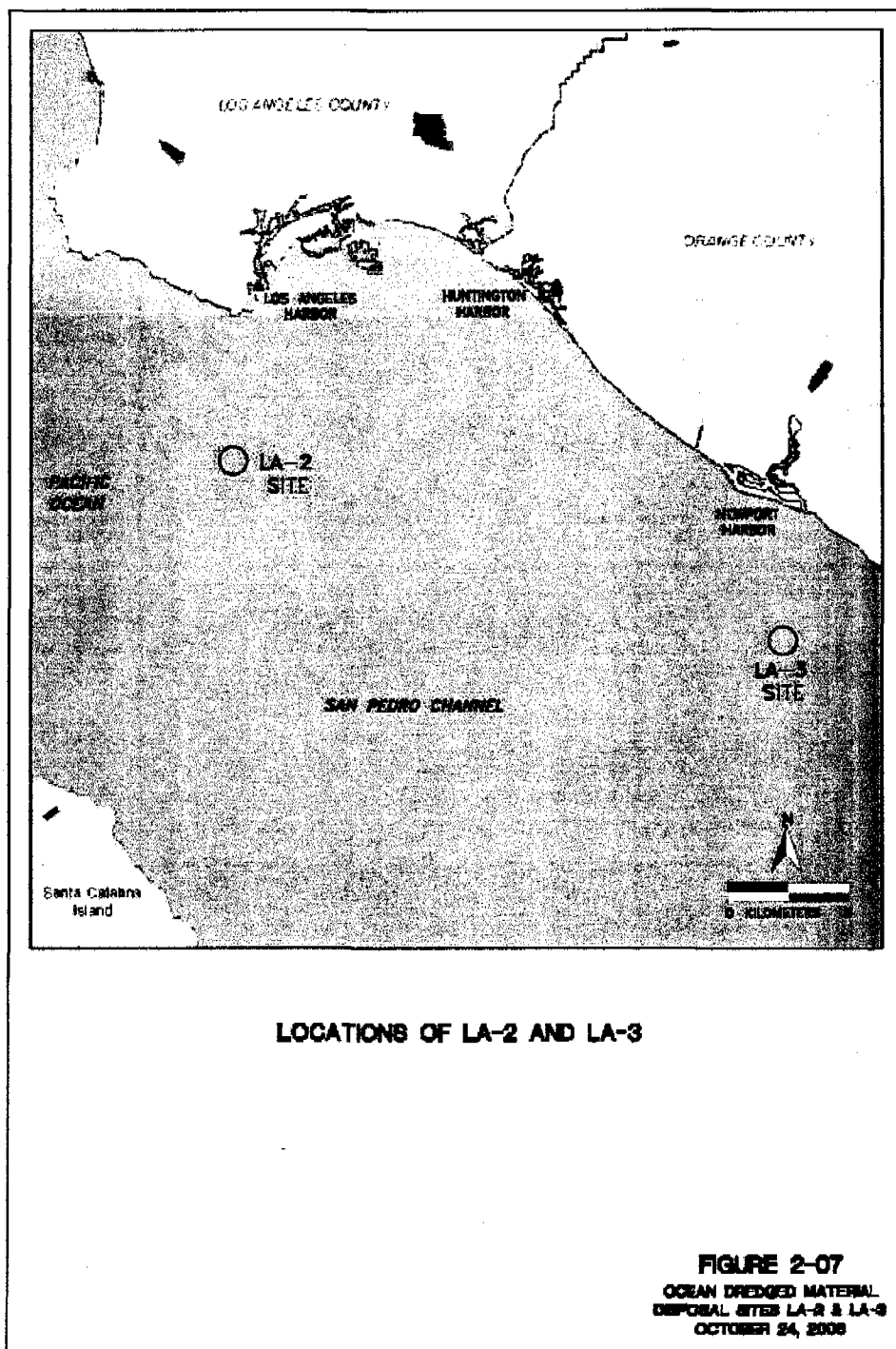


Figure 5 - Location of LA-2 Offshore Disposal Site

EXHIBIT NO. 5

APPLICATION NO.

CD-046-08

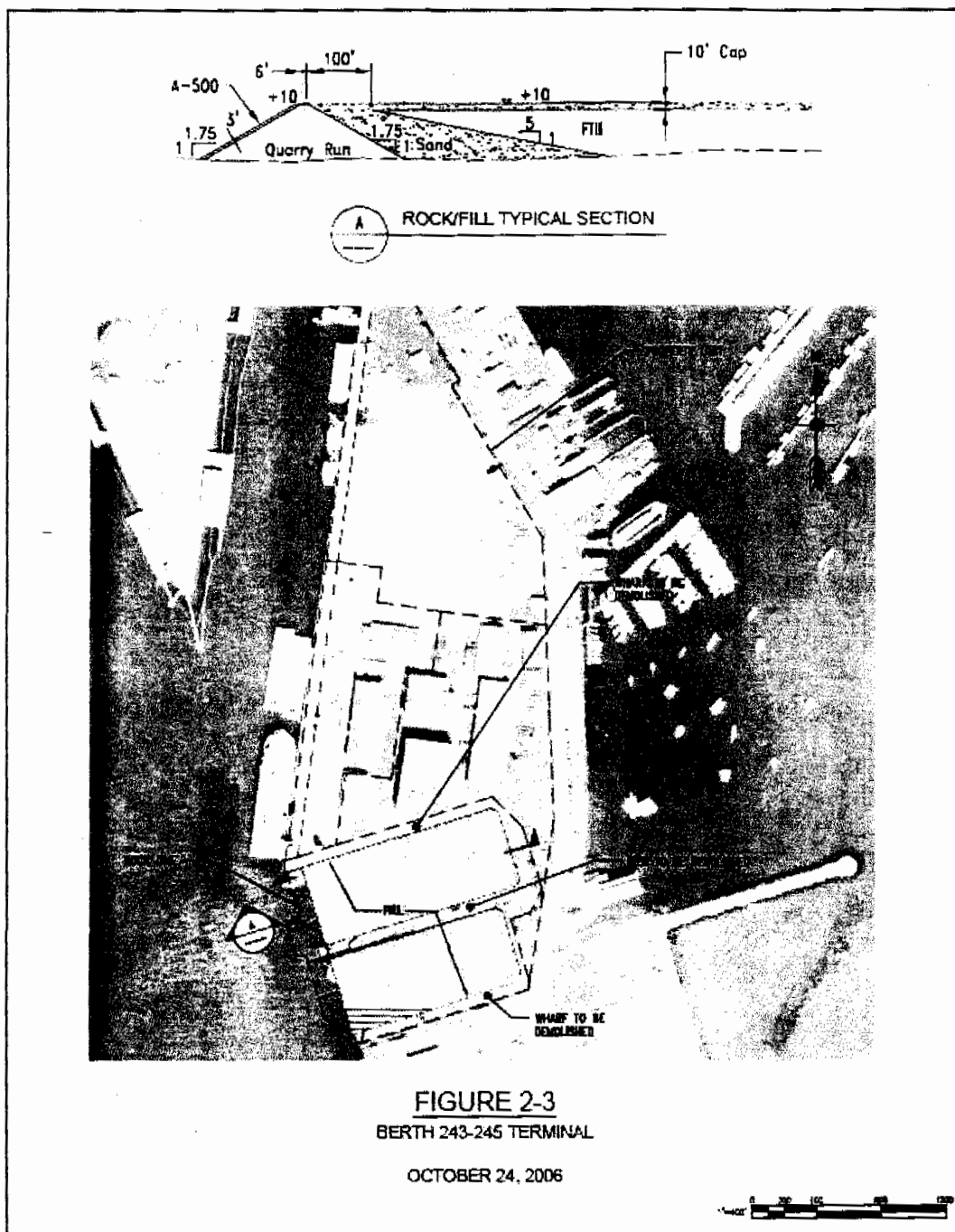
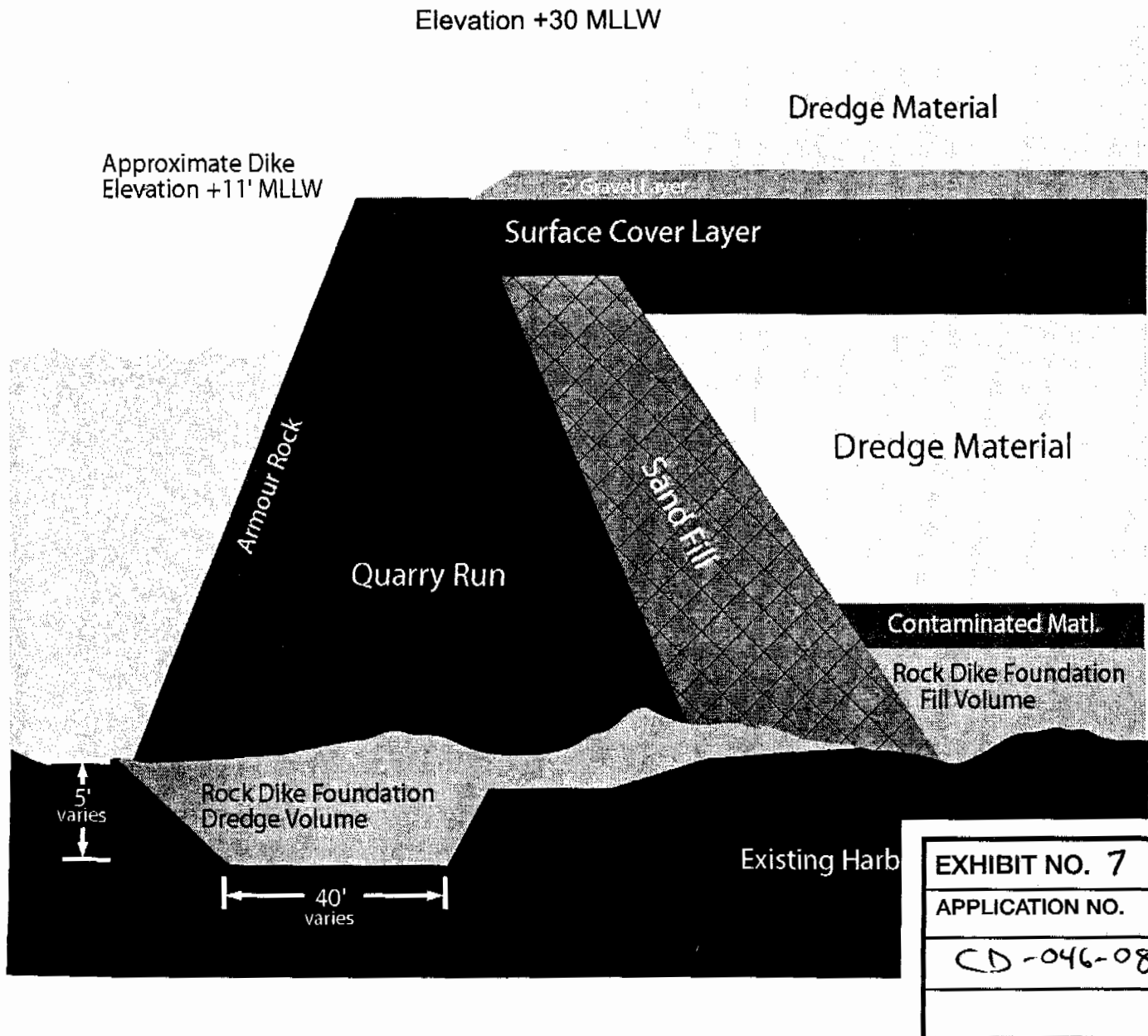


Figure 2 - Berth 243-245 Terminal

EXHIBIT NO. 6

APPLICATION NO.

CD-046-08



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Figure 2-13
Berths 243-245 Cross-Section

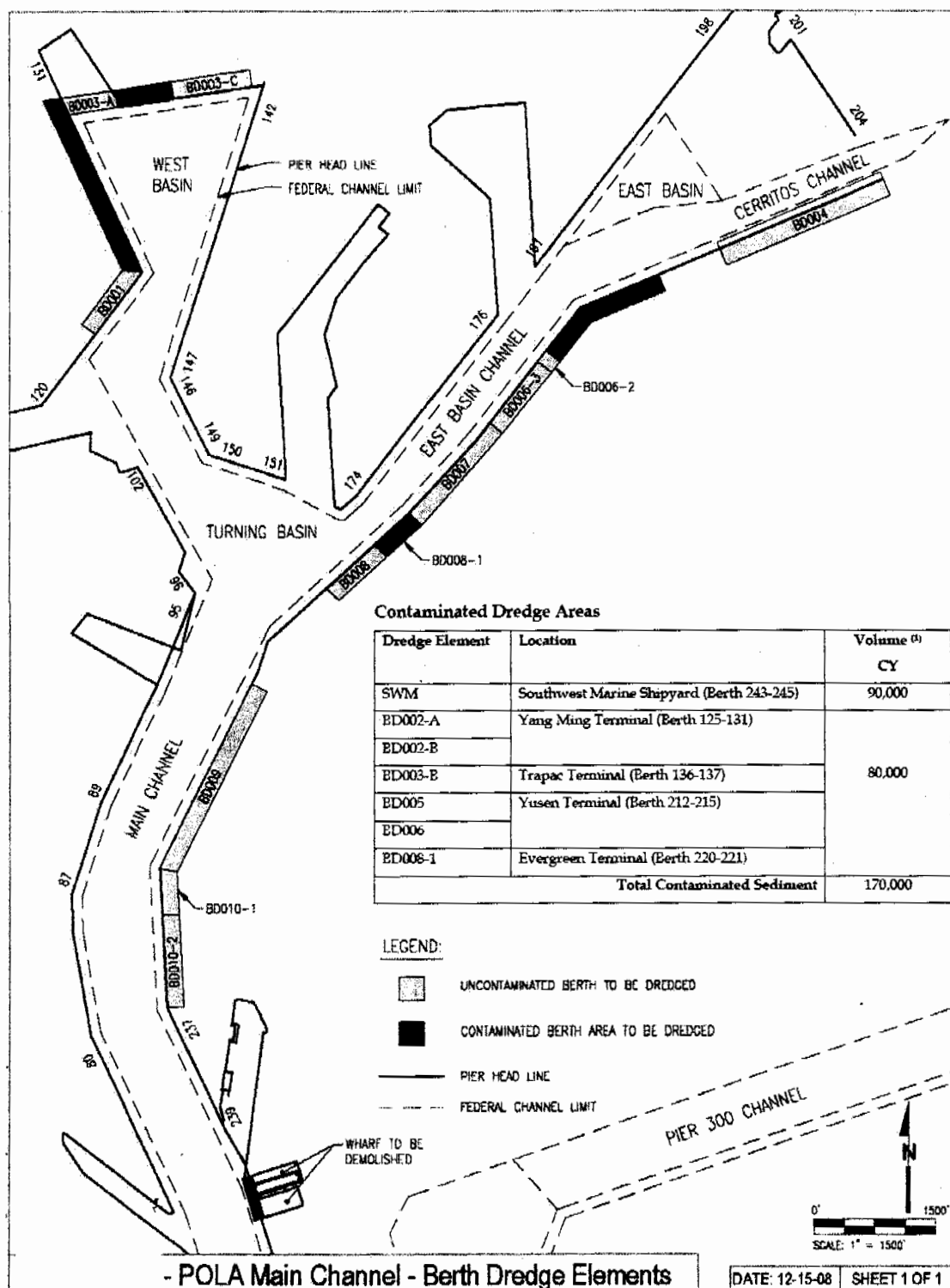


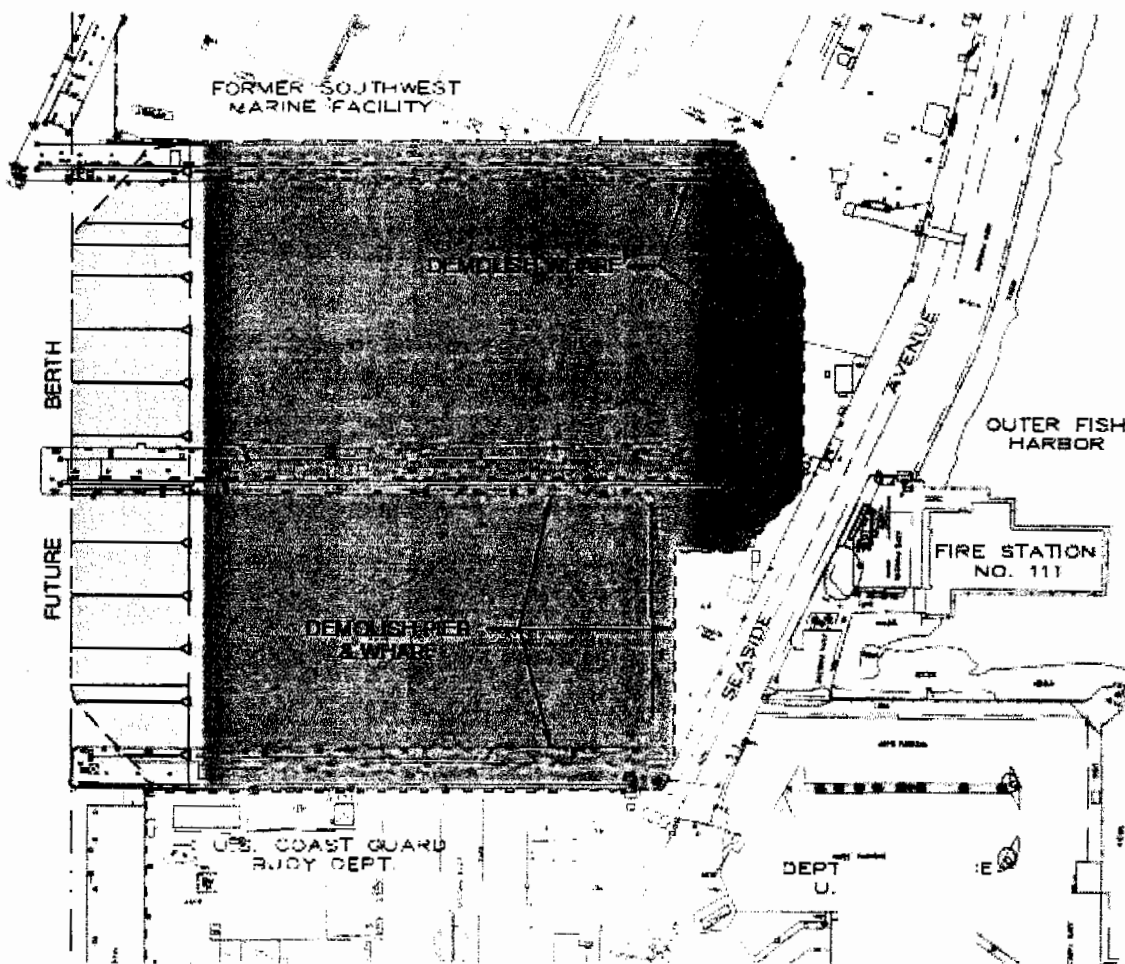
Figure 8 - Contaminated Sediment Dredge Areas

EXHIBIT NO. 8

APPLICATION NO.

CD-046-08

Figure 5 - Berth 243-245 Terminal - Dike and Fill Plan



CONFINED DISPOSAL FACILITY DIKE AND FILL PLAN

SCALE: 1" = 150'

LEGEND:



-  ROCK DIKE
-  LAND FILL

EXHIBIT NO. 9

APPLICATION NO.

CD-046-08

Contaminated Sediment Task Force Advisory Committee Meeting

Contaminated Sediment Management Plan Review

Figure 6 - Berth 243-245 - Sections

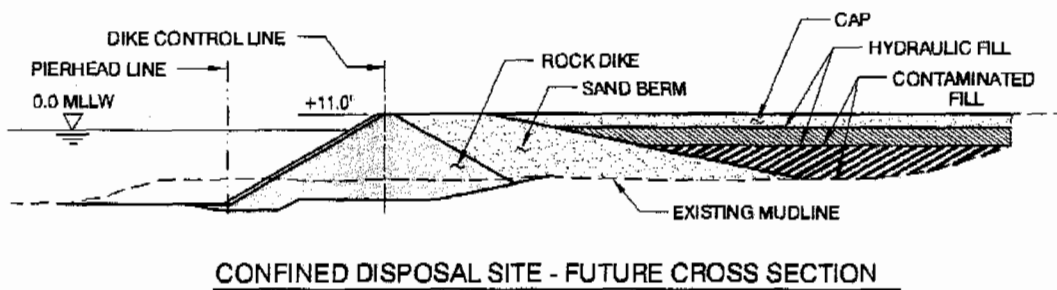
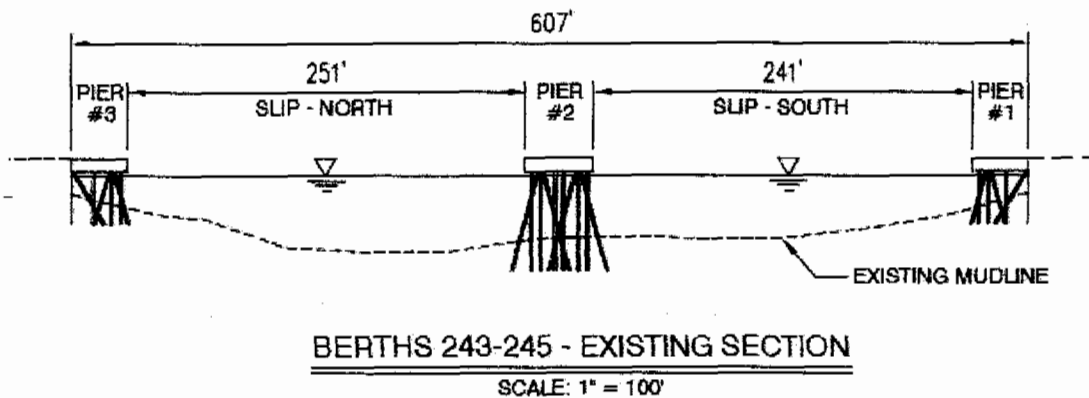


EXHIBIT NO. 10
APPLICATION NO.
CD-046-08

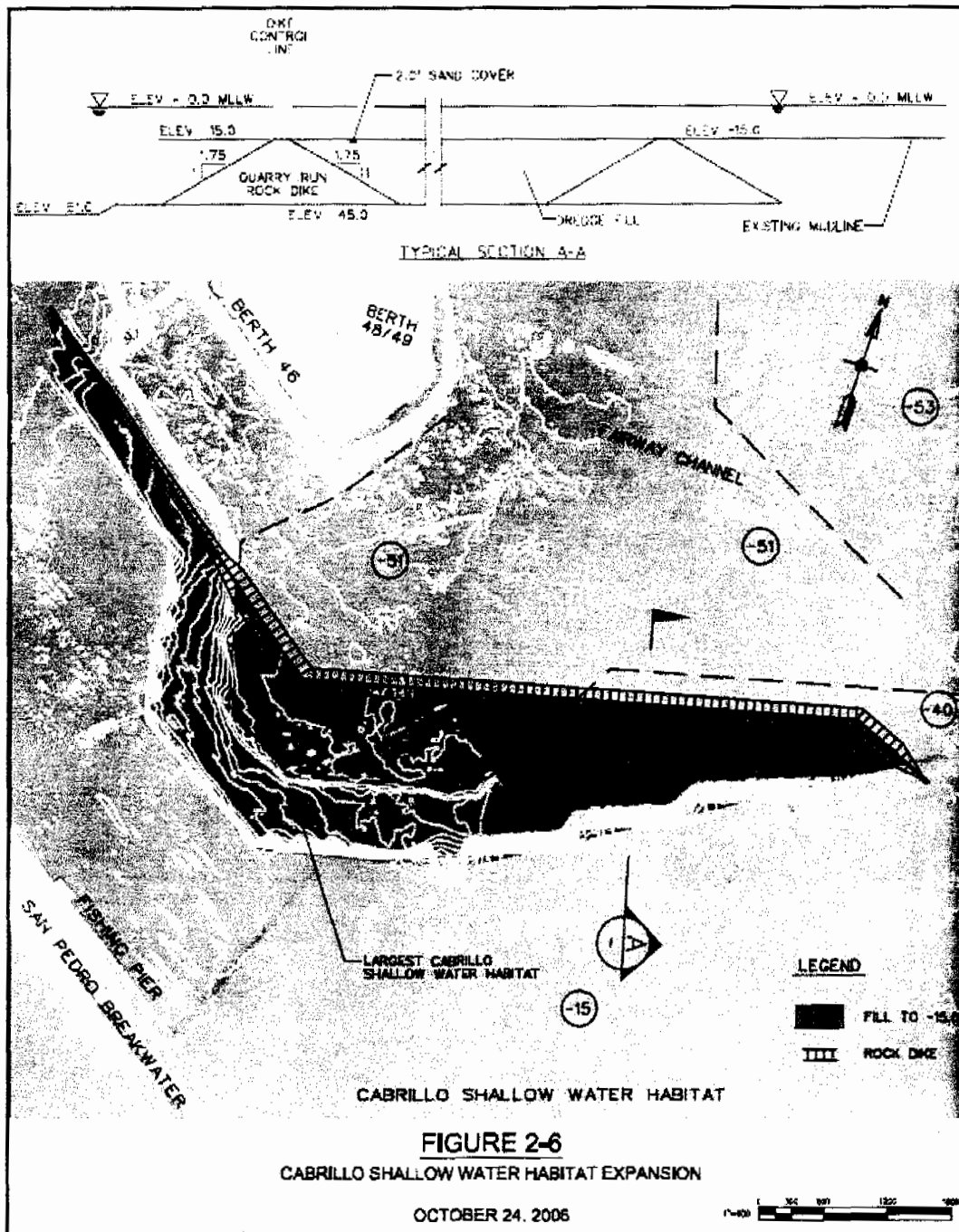


Figure 4 - Cabrillo Shallow Water Habitat Expansion

EXHIBIT NO. 11

APPLICATION NO.

CD-046-08

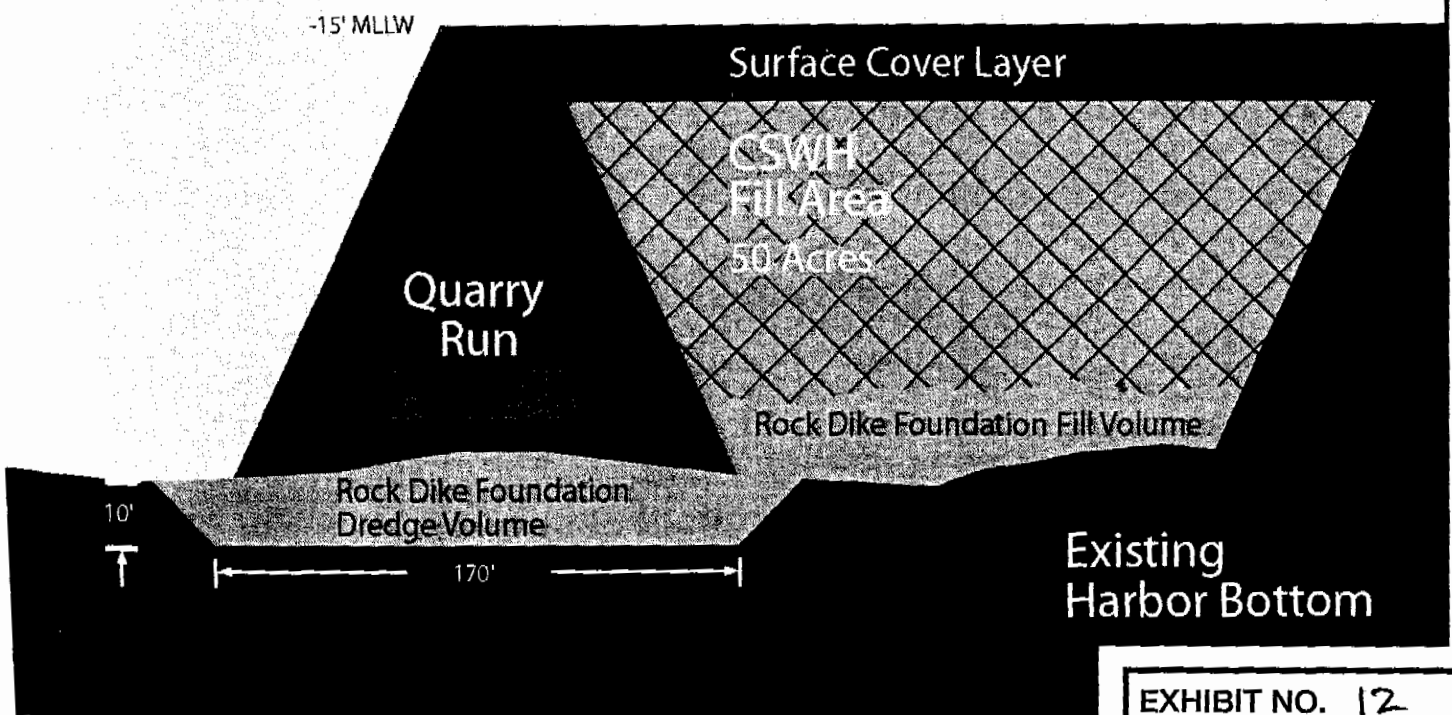


EXHIBIT NO. 12

APPLICATION NO.

CD-046-08

Not to Scale

Figure 2-15
CSWH Expansion
Area Cross-Section

**LOS ANGELES REGION
CONTAMINATED SEDIMENT TASK FORCE
ADVISORY COMMITTEE MEETING
MAY 12, 2009**

INTRODUCTION: The US Army Corps of Engineers (USACE) and the Port of Los Angeles (POLA), as part of the Port of Los Angeles Channel Deepening Project, have prepared a Contaminated Sediment Management Plan (CSMP), Addendum 2, to address management of sediments determined unsuitable for open water disposal as part of the Channel Deepening Additional Disposal Capacity Project. This memo serves to document conclusion and consensus of the CSTF Advisory Committee regarding the CSMP. A list of meeting attendees is included in Attachment No. 1.

BACKGROUND: The Port of Los Angeles Channel Deepening Project is a Federal deep draft navigation improvement project authorized by the Congress as part of the Water Resources Development Act of 2000. The project commenced construction in 2002. As part of the initial construction, a CSMP (January 2002) was prepared to address creation of a Confined Disposal Facility (CDF) at the SouthWest Slip Fill site. Dredge material management and monitoring requirements were addressed in the CSMP. The CSMP was concurred with by the CSTF Advisory Committee prior to project initiation.

In 2003, the USACE and POLA identified the need for removal of contaminated sediments at Berths 44-60. The CDF at the Southwest Slip was determined to have capacity for the dredge material. In May 2003, Channel Deepening Project CSMP Addendum 1 was coordinated with the CSFT Advisory Committee with concurrence prior to initiation of the work.

All work to date has been completed in conformance with water quality monitoring and reporting requirements identified in the CSMP's.

DISCUSSION: Construction progress to date has indicated a need for additional disposal capacity to complete the navigation improvements of the authorized project. The USACE and POLA have prepared a Final Supplemental Environmental Impact Statement/Supplemental Impact Report (FSEIS/SEIR), April 2009, for Additional Disposal Capacity to address this need. Supplemental sediment testing has identified the presence of dredge material unsuitable for open water disposal within the remaining dredge areas. USACE and POLA have prepared a CSMP Addendum 2 which is included as Attachment No. 2, to address dredge material management, disposal site conditions, and construction monitoring/reporting requirements for this additional work.

PROJECT DESCRIPTION: The Berths 243-245 disposal site, which consists of two open water slips covering approximately 8 acres, was part of the former Southwest Marine Shipyard site. The slips at Berths 243-245 contain contaminated sediments from past shipyard operations. This option includes creating a CDF for the existing contaminated materials within Berths 243-245, as well as for contaminated dredge material associated with completing the Channel Deepening Project which is unsuitable for open water disposal. A CSMP Addendum 2 has been developed in cooperation with the CSTF and other State and Federal agencies for moving and disposing of the contaminated sediments. Construction of a CDF involves placing contaminated dredged materials inside a diked area to create land. CDFs are constructed with containment and control measures such as lining, covering and effluent

EXHIBIT NO. 13
APPLICATION NO.
CD-046-08

control. CDFs are constructed with contaminated material as fill material and capped with clean material.

Over time, the material would densify; however, the timeframe for densification is unknown. Therefore, the surcharge material would remain in place until post project geotechnical investigation/monitoring determines the fill has been consolidated. In the future, after the material has consolidated and the Port determines a use for the site, the Port would prepare an appropriate CEQA document to develop the site.

ISSUES: On May 12, 2009 a meeting of the CSTF Advisory Committee was held to consider the CSMP Addendum 2. An agenda and figures were included as handouts to facilitate the meeting dialogue and are included as Attachment No. 3. Issues discussed include the following:

1. Is the meeting the final review of the CSMP? No, final design will be performed upon completion of the regulatory process. CSTF Advisory Committee representatives will be consulted to assure the commitments of the CSMP are included in project construction documents.
2. What water quality criteria will be used to monitor compliance during construction? The water quality monitoring criteria is included in the CSMP Addendum 2.
3. How will sediments from the rock dike keyway be isolated from re-exposure to the channel area? The contractor will be required to isolate the sediments through construction of a temporary berm which will contain these sediments.
4. Has beneficial use of dredge material been included in the Proposed Project? Yes, the FSEIS/SEIR identifies the Proposed Project as the plan which best meets the project objective of maximizing beneficial use of dredge material.

CONCLUSION/CONCURRENCE: Based on the above, the Advisory Committee members hereby concur with implementation of the Proposed Project identified in the FSEIS/SEIR and the CSMP Addendum 2.

CSTF ADVISORY COMMITTEE PARTICIPANTS

APPLICANTS

U.S. Army Corps of Engineers

Joy Jaiswal, Megan Wong, Jim Fields

Port of Los Angeles

David Walsh, John Foxworthy, Katherine Prickett, Kathryn Curtis

REGULATORY AGENCIES

U. S. EPA

Brian Ross, Jorine Campopiano

U. S. Army Corps of Engineers – Regulatory
Aaron Allen (invited but could not attend)

Los Angeles District Regional Water Quality Control Board
Michael Lyons

California Coastal Commission
Larry Simon, Al Padilla

RESOURCE AGENCY

California Department of Fish and Game
William Paznokas

National Marine Fisheries Service
Bryant Chesney (invited but could not attend)

ENVIRONMENTAL PUBLIC INTEREST GROUP

Heal the Bay
Susie Santilena

Timeline of Shallow Water Habitat Construction and Monitoring Efforts at Inner Cabrillo Beach

Results Before & After SWH

- * BT exceedances continue at beach face, no change.
- * BT Monthly offshore waters clean (except few days of storm events), no change.
- * 45 BT monitoring transects nearshore events, also clean with no change.
- * USACE current moorings and dye before/after show 2-layer wind dominated circulation.
- * 3D modeling, dye, and current meters confirm same wind dominated circulation patterns.

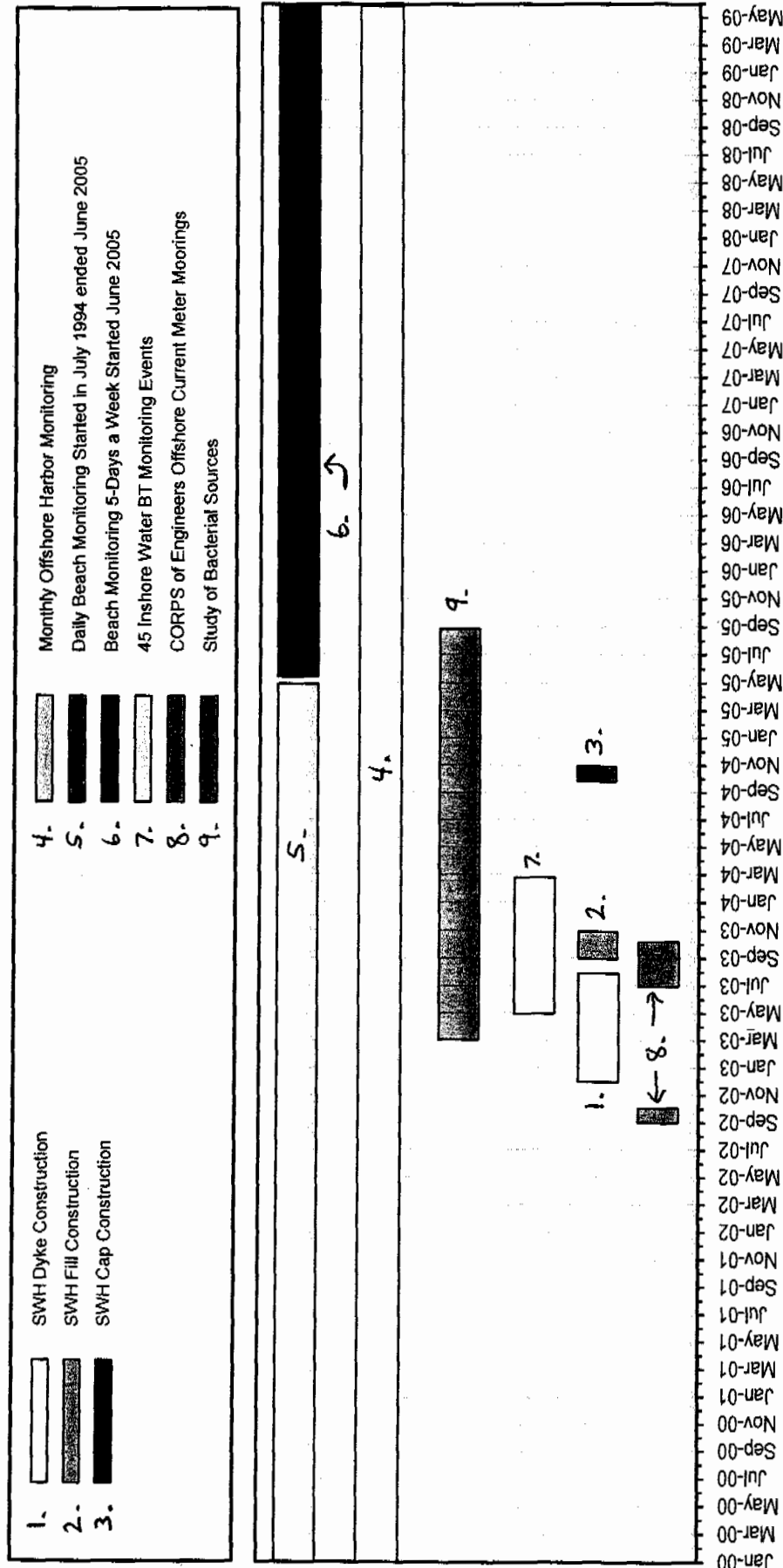
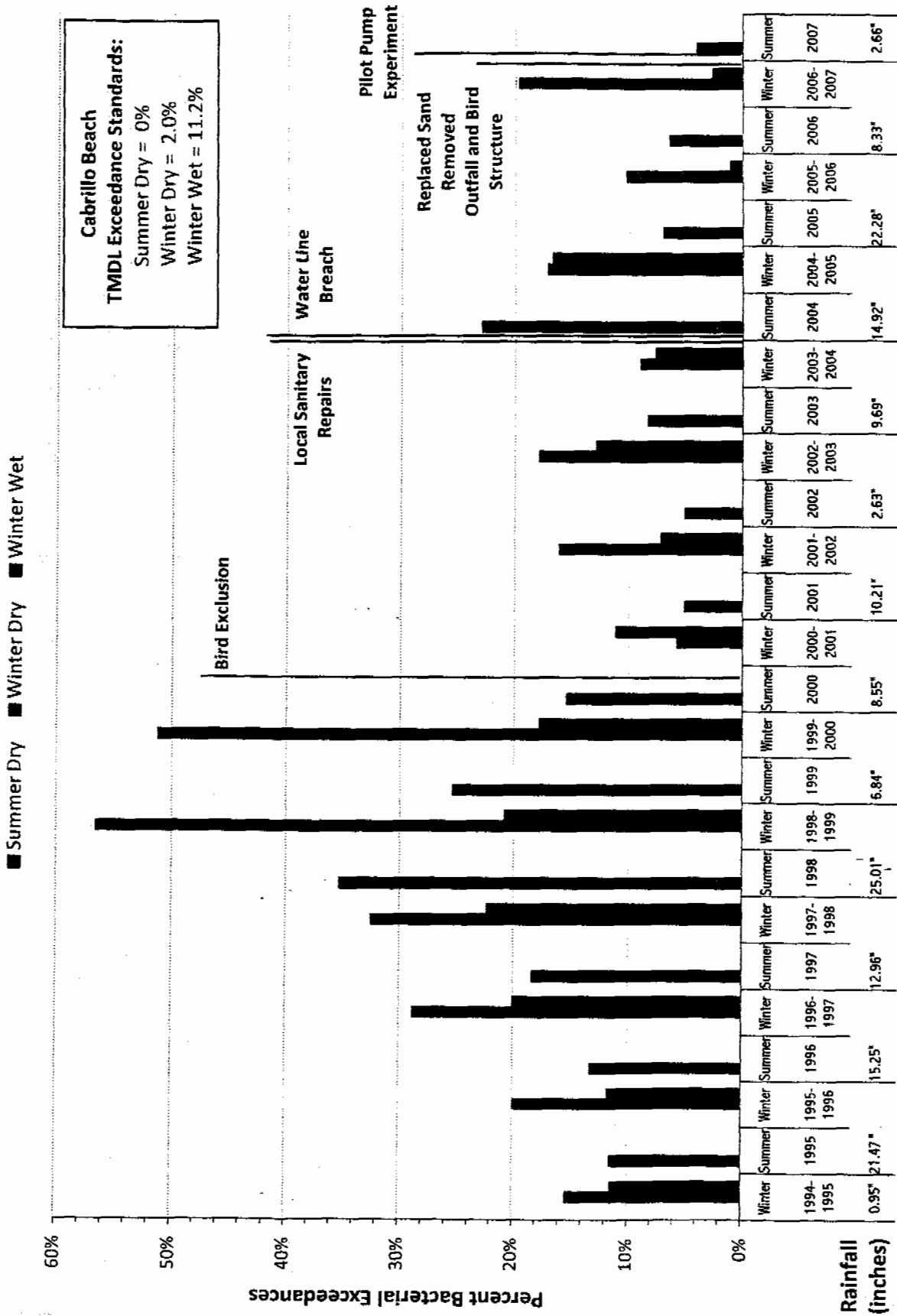


EXHIBIT NO. 14

APPLICATION NO.

Percent Bacterial Exceedance by TMDL Period



Inner Cabrillo Beach History of Bacterial Exceedances.

EXHIBIT NO. 15

APPLICATION NO. CD-046-08

INNER CABRILLO BEACH CORRECTIVE ACTIONS AND RESULTS

21 May 2008



Port of Los Angeles
Engineering Division

Purpose: To meet water quality standards (REC-1) at CB02 on the beach consistent with the new Los Angeles Harbor bacterial TMDL. Preserve a historic sheltered recreational and educational beach for urban City.

Implementation Plan: Proposition 13 Source Study followed by Concept Implementation Plan (KLI/POLA, 2006a, b) identified sources and sequential corrective actions. Harbor waters generally clean except for few days after rain events and contamination sources at the beach face.

First - Drainage Infrastructure Repair: (Red=Implemented)

- Rebuild Leaking Sanitary Sewer System (Prop. 13)
- Divert Dry Weather Flows from Beach (Prop. 13)
- Remove Old Outfall with Contaminated Water (Prop. 40)

Local Sources/ Beach Configuration Actions Completed/In Progress:

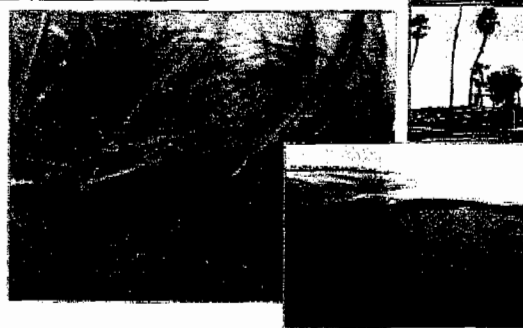
- Re-contour Beach/Replace Sand to Prevent Ponding & Improve Drainage (Wet Weather BMP; Beach Face Pending, Prop. O)
- Remove Rock Groin at Boat Launch Ramp to Improve Water Circulation at Beach Face (Pending, Prop. 40)
- Circulation Pump Study to Improve Flushing & Mixing at Beach Face (Small Pump not Effective, Collection System Settlement)
- Aquarium Operational Water Discharge (Not BT Source; POLA)
- Replace/Rebuild Bird Exclusion Structure (Pending; Prop. 40)

Beach Performance

- Bacterial exceedances of water quality criteria have continued to occur at Inner Cabrillo Beach in violation of the TMDL requirements. Violations have continued with frequencies similar to dry weather results of previous years.

Additional Local Sources/ Beach Configuration Actions

- Implement Pending Corrective Actions
- Eelgrass Bed Mud and Organics Sources - Clean/Deepen Immediate Nearshore Beach Area & Mitigate
- Large Circulation/ Mixing Pump



Kinnetic Laboratories/POLA Engineering Division/Kinnetic Laboratories, 2006. Inner Cabrillo Beach Water Quality Improvement Project, Source Identifications and Mitigation Alternatives.

Kinnetic Laboratories/DMJM Harris/Port of Los Angeles 2006. Inner Cabrillo Beach Water Quality Improvement Project. Concept Implementation Plan.

RWQCB, 2004. Los Angeles Harbor Bacteria TMDL, Inner Cabrillo Beach and Main Ship Channel. April 30, 2004.

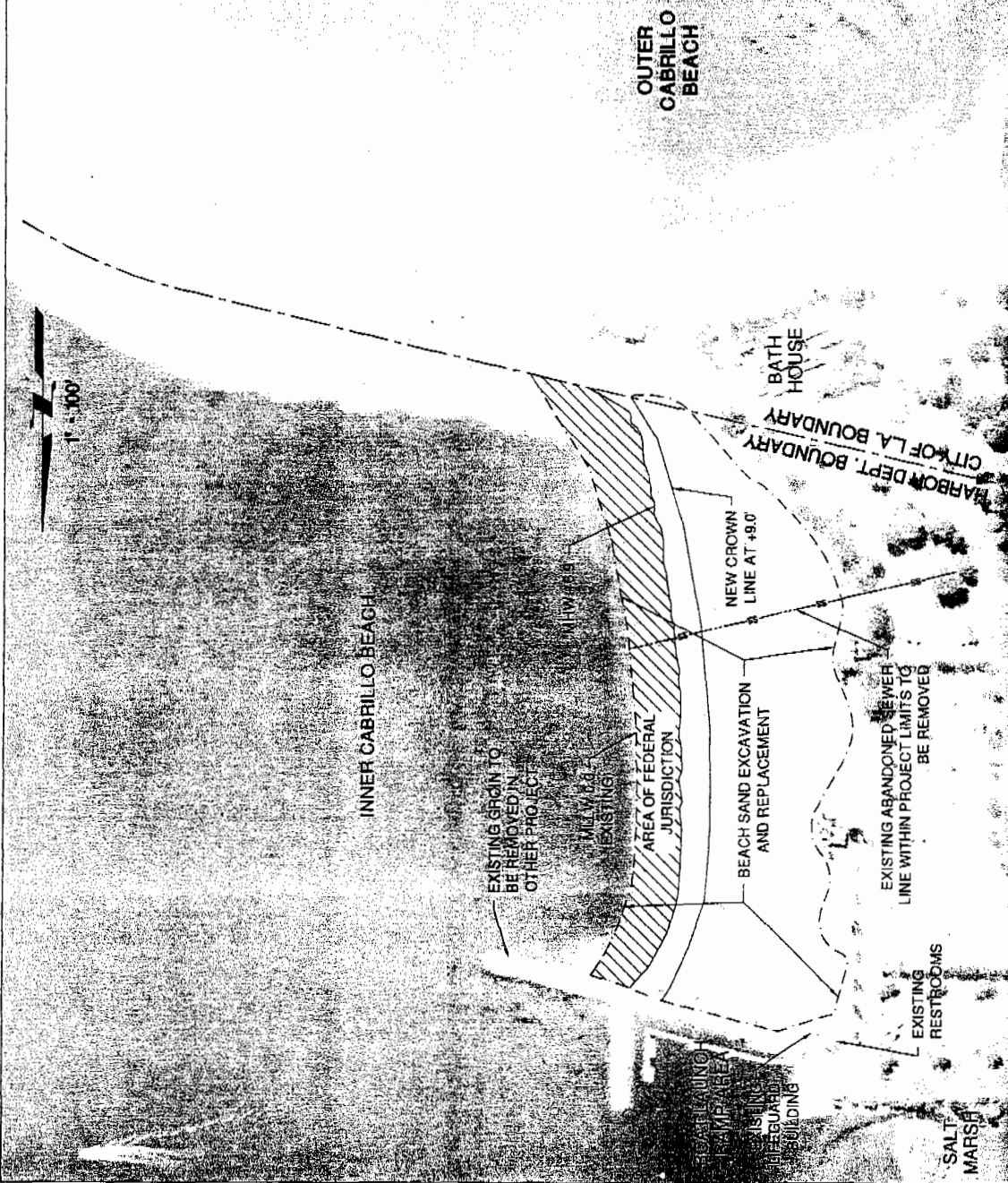
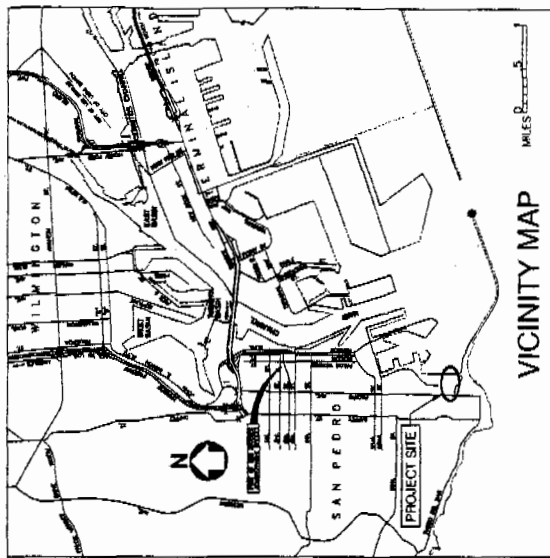
City of Los Angeles Department of Public Works, 2007. Pilot Study Work Plan, Inner Cabrillo Beach Water Quality Improvement Plan. Collection System Settlement Agreement Supplemental Environmental Projects. July 18, 2007 (Revised).

Kinnetic Laboratories/POLA Engineering Division, 2008. Monitoring Results Inner Cabrillo Beach Pilot Beach Circulation Pump Experiment.

EXHIBIT NO. 16

APPLICATION NO.

CD-046-08



INNER CABRILLO BEACH ONSHORE BEACH SAND REPLACEMENT AND RE-CONTOUR OF SURFACE AREA

PLAN VIEW
DATE: OCTOBER 2, 2008
VERSION: 1

