

**CALIFORNIA COASTAL COMMISSION**

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# W 7a

May 20, 1998

**TO: COMMISSIONERS AND INTERESTED PERSONS**

**FROM: PETER M. DOUGLAS, Executive Director**  
Charles Damm, Deputy Director  
Larry Simon, Ports Coordinator

**SUBJECT: Staff Recommendation on Port of Los Angeles Port Master Plan Amendment No. 19** (Deepening of the Main Channel and designation of two outer harbor areas as dredged material borrow and disposal sites). For Commission consideration at meeting of June 10, 1998.

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### SUMMARY OF STAFF RECOMMENDATION

Staff recommends that the Commission **certify** the Port of Los Angeles port master plan amendment No. 19, which provides for: (1) deepening the Main Channel, Inner Harbor Turning Basin, West Basin, East Basin, East Basin Channel, and selected container berths from the current -45 feet mean lower low water (MLLW) to -50 feet MLLW by dredging up to five million cubic yards of material, in order to accommodate new container vessels with drafts of -46 feet; and (2) designating two dredged material borrow and disposal sites as allowable in-water uses in the outer harbor, in order to manage the handling of dredged material from the proposed Main Channel Deepening Project and the under-construction Pier 400/Deep Draft Navigation Project (Exhibits 1 and 2). The staff recommends that the Commission find that the proposed amendment conforms with and carries out the port development and marine resource policies of Chapter 8 of the Coastal Act.

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**I. Port Master Plan Amendment Procedure.** California Code of Regulations, Title 14 Section 13636 calls for port master plan amendments to be certified in the same manner as provided in Section 30714 of the Coastal Act for certification of port master plans. Section 13628 of the Regulations states that upon the determination of the Executive Director that the master plan amendment and accompanying materials required by Section 13628(a) are sufficient, the master plan amendment shall be deemed submitted to the Commission for purposes of Section 30714 of the Coastal Act. The subject amendment was deemed submitted on April 10, 1998. Within 90 days of this submittal date, the Commission, after

public hearing, shall certify or reject the amendment, in whole or in part. The Commission may not modify the amendment as a condition of certification. If the Commission fails to take action on the amendment submittal within the 90-day period, the proposed amendment is deemed certified. The 90-day period expires on July 9, 1998.

Section 30714 also states that the Commission shall certify the amendment if the Commission finds both that:

1. The certified portions of the amendment conform with and carry out the policies of Chapter 8 of the Coastal Act.
2. Where the amendment provides for development listed as appealable in Section 30715, such development is in conformity with all the policies of Chapter 3 of the Act.

The proposed amendment provides for deepening the Main Channel, turning basins, and container berths, and designating two dredged material borrow and disposal sites as allowable in-water uses in the outer harbor. The proposed amendment will be evaluated under the policies of Chapter 8 of the Coastal Act.

## **II. STAFF RECOMMENDATION:**

The staff recommends the Commission adopt the following resolution:

**MOTION.** I move that the Commission certify the Port of Los Angeles' Port Master Plan Amendment No. 19.

The staff recommends a **YES** vote on this motion. A majority vote in the affirmative will result in adoption of the following resolution.

### **Certification of Amendment.**

The Commission hereby **certifies** the Port of Los Angeles Port Master Plan Amendment No. 19 and finds, for reasons discussed below, that the amended Port Master Plan conforms with and carries out the policies of Chapter 8 of the Coastal Act. The Commission further finds that the plan amendment will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

## **III. FINDINGS AND DECLARATIONS.**

The Commission finds and declares as follows:

**A. Previous Commission Action.** The Commission certified the Port of Los Angeles Port Master Plan through actions taken on March 19, 1980 and April 15, 1980. The Commission has reviewed seventeen amendments to the master plan since that date, most recently in April 1997. (Completion of Amendment No. 18 was delayed by the Port due to changed circumstances, thereby allowing Amendment No. 19 to be submitted to the Commission first. The Port expects to submit Amendment No. 18 to the Commission later this year.)

In March 1997 the Commission approved coastal development permit 5-96-163 (Port of Los Angeles) for deepening to -50 feet MLLW a 3,800-foot-long section of the Main Channel extending from the S.P. Slip north to Berths 84 and 234 (Exhibit 2). In May 1997 the Port dredged 200,000 cubic yards of sediment from the Main Channel and placed the material in the Pier 400 landfill. The project site for that permit is within the Main Channel corridor included in the subject plan amendment.

**B. Contents of Port Master Plan Amendments.** California Code of Regulations Title 14, Section 13656 calls for port master plan amendments to be certified in the same manner as port master plans. Section 30711 of the Coastal Act provides, in part, that a port master plan shall include all the following:

1. The proposed uses of land and water, where known.
2. The proposed design and location of port land areas, water areas, berthing, and navigation ways and systems intended to serve commercial traffic within the area of jurisdiction of the port governing body.
3. An estimate of the effect of development on habitat areas and the marine environment, a review of existing water quality, habitat areas, and quantitative and qualitative biological inventories, and proposals to minimize and mitigate any substantial adverse impacts.
4. Proposed projects listed as appealable in Section 30715 in sufficient detail to determine their consistency with the policies of Chapter 3 (commencing with Section 30200) of this division.
5. Provisions for adequate public hearings and public participation in port planning and development decisions.

The Commission finds that the proposed port master plan amendment conforms with the provisions of Section 30711 of the Coastal Act. There are adequate details in the port master plan submittal and associated materials for the Commission to make a determination of the proposed amendment's consistency with Chapter 8 policies of the Coastal Act.

The draft master plan amendment was distributed by the Port of Los Angeles for public review and comment on December 18, 1997. An Environmental Impact Report for the Main Channel Deepening Project (including the designation of two dredged material borrow and disposal sites as allowable in-water uses in the outer harbor) was certified and approved by the Board of Harbor Commissioners on January 28, 1998. On that same date the Board conducted a public hearing on the proposed amendment, and at their meeting of March 11, 1998, the Board approved the amendment.

**C. Appealable Development.** In determining the standard of review for the proposed master plan amendment, Section 30714 of the Coastal Act provides guidance and states in part that:

The Commission shall certify the plan, or portion of the plan, if the Commission finds both of the following:

- (a) The master plan, or certified portions thereof, conforms with and carries out the policies of this chapter.
- (b) Where a master plan, or certified portions thereof, provide for any of the developments listed as appealable in Section 30715, the development or developments are in conformity with all policies of Chapter 3 (commencing with Section 30200).

Section 30715(a) of the Coastal Act provides, in part, that:

(a) . . . After a port master plan or any portion thereof has been certified . . . approvals of any of the following categories of development by the port governing body may be appealed to the Commission:

- (1) Developments for the storage, transmission, and processing of liquefied natural gas and crude oil in such quantities as would have a significant impact upon the oil and gas supply of the state or nation or both the state or nation. A development which has a significant impact shall be defined in the master plans.
- (2) Waste water treatment facilities, except for those facilities which process waste water discharged incidental to normal port activities or vessels.
- (3) Roads or highway which are not principally for internal circulation within the port boundaries.
- (4) Office and residential buildings not principally devoted to the administration of activities within the port; hotels, motels, and shopping

facilities not principally devoted to the sale of commercial goods utilized for water-oriented purposes; commercial fishing facilities; and recreational small craft marina related facilities.

(5) Oil refineries.

(6) Petrochemical production plants. . . .

The Port's plan amendment submittal states that the proposed Main Channel Deepening Project and water use designation does not provide for development listed as appealable in Section 30715(a), and that subsequent harbor development permits approved for dredging or filling at these sites would not be appealable development under Section 30715(a).

Therefore, the standard of review for the proposed amendment is Chapter 8 of the Coastal Act.

**D. Summary of Proposed Plan Amendment.** The Port of Los Angeles proposes to amend its port master plan by obtaining Commission certification of the following:

- Deepening the Main Channel, Inner Harbor Turning Basin, West Basin, East Basin, East Basin Channel, and selected container terminal berths (121-126, 136-139, 212-216, and 226-232) from the current -45 feet MLLW to -50 feet MLLW by dredging up to five million cubic yards of material. The 50-foot depth will allow the Port to accommodate a new generation of container vessels with drafts of 46 feet (Exhibits 1 and 2).
- Designating two dredged material borrow and disposal sites as allowable in-water uses in the outer harbor, in order to manage the handling of dredged material from the proposed Main Channel Deepening Project and the under-construction Pier 400/Deep Draft Navigation Project (Exhibit 3). The Stage 1 Pier 400 borrow pit, an approximately 50-acre site located in the Main Channel just inside Angel's Gate, was previously dredged from -81 feet MLLW to -91 feet MLLW to provide approximately 700,000 cubic yards of suitable fill material for the Stage 1 Pier 400 landfill; this borrow pit could accept an equal volume of sediment from the Main Channel Deepening Project to return the site to a depth of -81 feet MLLW. The Stage 2 borrow pit, an approximately 60-acre site located southeast of Pier 400, could accommodate up to two million cubic yards of dredged sediments if the site is mined for suitable material for the Pier 400 landfill; this area would be deepened from -75 feet MLLW to as deep as -92 feet MLLW during mining and then returned to the original depth using dredged materials from the Main Channel Deepening Project.

The potential disposal sites for the five million cubic yards of dredged material generated by the Main Channel Deepening Project include: (1) Anchorage Road for 350,000 cubic yards of

contaminated sediment; (2) Pier 400 landfill for up to two million cubic yards of clean, construction grade sediments; (3) Cabrillo Shallow Water Habitat expansion site for clean sediment; (4) LA-3 ocean disposal site for up to three million cubic yards of clean sediment; and (5) the aforementioned outer harbor borrow sites for up to 2.7 million cubic yards of clean sediment. The Commission has previously certified dredge material disposal at the first three sites (above), the fourth site is the subject of Consistency Certification CC-42-98 (scheduled for Commission action at the June 1998 meeting), and the fifth site is an element of this port master plan amendment.

The Environmental Impact Report for the project states that:

*The Port of Los Angeles has been formed over the years by incrementally dredging channels to accommodate larger vessels and to use the dredged materials to create new land for cargo terminals. The Main Channel was deepened by ten feet to its existing depth of -45' MLLW in 1982. The material dredged in 1982 was used to create Pier 300. [Deeper areas exist as a result of mining operations to produce fill material for terminal construction.]*

*The Port of Los Angeles is currently the eighth largest facility for containerized cargo in the world. In 1996, 2.7 million Twenty-foot Equivalent Units (TEU) of container cargo passed through the Port. Existing trends in the global container shipping industry indicate that the continued merging of independent shipping lines into alliances has resulted in the introduction of a new generation of container vessels which carry over 5,000 TEUs. These vessels are longer and wider than previous vessels, but most significantly now draft up to 46 feet in depth. Presently, five of the major container shippers in San Pedro Bay have vessels which draft 46 feet. Another 50 vessels are either under construction or on order to replace aging early generation vessels and to meet competitive requirements for shipping efficiencies.*

*The primary objective of this project is to accommodate the shift to a new generation of larger container vessels. The new generation of container vessels possess a 46-foot draft. The Los Angeles Harbor department must deepen existing navigation channels an additional five feet from the present depth of -45' MLLW to -50' MLLW to allow for safe shipping operations. This depth is necessary to provide an adequate under keel clearance necessary to accommodate tides and for safety purposes.*

Deepening the Main Channel will affect approximately 670 acres of existing deep water harbor bottom. Dredging is scheduled to occur 24 hours per day beginning in July 1998 and will take one year to complete.

In March 1997 the Commission approved coastal development permit 5-96-163 (Port of Los Angeles) for deepening to -50 feet mean lower low water a 3,800-foot-long section of the Main Channel extending from the S.P. Slip north to Berths 84 and 234. The Commission

found that the project conformed to the marine resource and water quality policies of Chapter 8 of the Coastal Act. In May 1997 the Port dredged 200,000 cubic yards of sediment from the Main Channel and placed the material in the Pier 400 landfill. The subject master plan amendment includes the section of the Main Channel addressed by 5-96-163, and the adopted findings from that permit are incorporated into this report by reference.

**E. Conformance with the Coastal Act.** In order for the Commission to certify the proposed amendment, the Commission must determine that the amendment conforms to the following Chapter 8 policies of the Coastal Act:

**Section 30701.** The Legislature finds and declares that:

- (a) The ports of the State of California, including the Humboldt Bay Harbor, Recreation, and Conservation District, constitute one of the state's primary economic and coastal resources and are an essential element of the national maritime industry.
- (b) The location of the commercial port districts within the State of California, including the Humboldt Bay Harbor, Recreation, and Conservation District, are well established, and for many years such areas have been devoted to transportation and commercial, industrial, and manufacturing uses consistent with federal, state, and local regulations. Coastal planning requires no change in the number or location of the established commercial port districts. Existing ports, including the Humboldt Bay Harbor, Recreation, and Conservation District, shall be encouraged to modernize and construct necessary facilities within their boundaries in order to minimize or eliminate the necessity for future dredging and filling to create new ports in new areas of the state.

**Section 30705.**

- (a) Water areas may be diked, filled, or dredged when consistent with a certified port master plan only for the following:
  - (1) Such construction, deepening, widening, lengthening, or maintenance of ship channel approaches, ship channels, turning basins, berthing areas, and facilities as are required for the safety and the accommodation of commerce and vessels to be served by port facilities.
  - (2) New or expanded facilities or waterfront land for port-related facilities.
  - (3) New or expanded commercial fishing facilities or recreational boating facilities.
  - (4) Incidental public services purposes, including, but not limited to, burying cables or pipes or inspection of piers and maintenance of existing intake and outfall lines.

- (5) Mineral extraction, including sand for restoring beaches, except in biologically sensitive areas.
  - (6) Restoration purposes or creation of new habitat areas.
  - (7) Nature study, mariculture, or similar resource-dependent activities.
  - (8) Minor fill for improving shoreline appearance or public access to the water.
- (b) The design and location of new or expanded facilities shall, to the extent practicable, take advantage of existing water depths, water circulation, siltation patterns, and means available to reduce controllable sedimentation so as to diminish the need for future dredging.
- (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.** 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.** All port-related developments shall be located, designed, and constructed so as to:

- (a) Minimize substantial adverse environmental impacts.
- (b) Minimize potential traffic conflicts between vessels.
- (c) Give highest priority to the use of existing land space within harbors for port purposes, including, but not limited to, navigational facilities, shipping industries, and necessary support and access facilities.
- (d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible.
- (e) Encourage rail service to port areas and multicompany use of facilities.

**1. Marine Resources and Water Quality.** The primary issue associated with the proposed amendment is potential marine resource and water quality impacts from dredging operations in the Main Channel. The Final Environmental Impact Report (FEIR) for the proposed Main Channel Deepening Project documents the existing marine biological values within the project area, including fish populations, benthic invertebrates, and endangered species. The Los Angeles-Long Beach harbor complex is comprised primarily of soft-bottom habitat and is a transient or permanent home to over 130 species of juvenile and adult fish. In addition, the endangered California least tern is present in the harbor area during its April to September breeding season; the least tern has nested on Terminal Island since at least 1979 and on the under-construction Pier 400 since 1997. The least tern feeds on small fish primarily in shallow water areas of the harbor (less than -20 feet MLLW) but occasionally forages in the Main Channel. The endangered California brown pelican is found throughout the harbor during most of the year and is commonly seen in the Main Channel near the fish markets at Berth 72 and the S.P. Slip.

The dredging of channels, turning basins, and berths will deepen by five feet these existing deep-water areas and will generate adverse impacts to marine habitat. Dredging will affect approximately 670 acres of predominantly soft bottom sediment in the project area, and filling of the two outer harbor borrow pits back to surrounding grade will affect approximately 110 acres of soft bottom habitat. Both dredging and filling will lead to localized short-term increases in turbidity. The FEIR states that:

*Recolonization would begin immediately after dredging ceased and species composition would be expected, given time for recovery to a mature community, to be similar to that of the area prior to dredging. The 1988 Biological Baseline Study (MEC, 1988) found that areas dredged in the 1982 Channel Deepening Program were biologically similar to non-dredged areas. Recovery, therefore, is expected to take six years or less. Water and sediment quality have improved considerably since 1988 as a result of state and federal water quality control regulations. Recovery, as a result, is expected to occur at a faster rate with complete recovery somewhat less than six years. Direct impacts on soft bottom communities is judged to be adverse, but not significant.*

Dredging and filling will also generate unavoidable, localized increases in turbidity due to sediment suspension in the water column. In some dredging locations turbidity will be generated by the suspension of contaminated sediments. The FEIR states that:

*Water and sediment quality in the harbor will be improved by the removal of the top layer of sediment which, in some areas, contains the buildup of fifteen years of sediment and sediment contaminants. Sediments serve as a reservoir for contaminants in the aquatic environment. Contaminants enter the system from terrestrial sources such as stormwater runoff and aerial deposition and are adsorbed onto the sediments. Contaminants are then held in the system and build up over time. Dredging and disposing of these sediments removes the contaminants from the system and results in a healthier environment.*

In the proposed plan amendment, the Port of Los Angeles states that:

*[The project FEIR did not identify] any unavoidable adverse impacts to water quality or marine biological resources due to the deepening project or creation and use of the borrow pits. Temporary impacts on water quality and marine biological resources associated with the deepening project could include increased turbidity, decreases in dissolved oxygen, increases in nutrients and increases in suspended contaminants. However, as indicated above, these impacts would be temporary in nature and would generally be confined to the construction phase of the project.*

....

*Material from the dredging activity and borrow pits has been analyzed for toxicants. A Section 10 Permit (Rivers and Harbor Act) and a Section 404 Permit (Clean Water Act) will be obtained from the U.S. Army Corps of Engineers for the project. A Section 401 Certification (Clean Water Act) from the State Water Resources Control Board will also be required. Dredge material testing was conducted under Section 103 of the Marine Protection, Research and Sanctuaries Act using the USEPA/COE "Green Book" criteria for those materials being considered for ocean disposal. For in harbor disposal of the*

*dredge material, appropriate testing was also required. The results of the testing found the material to be suitable for ocean disposal.*

The Port concluded in its amendment submittal that the proposed channel deepening and the proposed allowable water use designation for clean dredged material removal and placement at two outer harbor borrow pits are consistent with the policies of Chapter 8 of the Coastal Act because the activities: (1) provide for the construction of port facilities to accommodate commerce and vessels; and (2) minimize harmful effects to coastal resources by removing contaminated sediments from the marine environment and allowing the placement of only clean dredged materials at the two borrow pits.

The proposed amendment does not, in and of itself, permit any dredging or dredged material disposal to occur within the Port of Los Angeles. Instead, the amendment designates these activities as allowable uses under the port master plan and allows the Port to issue harbor development permits for the dredging and disposal activities outlined in the plan amendment. In its review of the plan amendment, the Commission must determine whether the proposed uses conform to the applicable Chapter 8 policies of the Coastal Act. The amendment is consistent with Section 30701 of the Coastal Act in that the channel deepening and beneficial reuse of dredged materials (filling in the outer harbor borrow pits to replace mined sediments used to construct the Pier 400 landfill) will support the modernization and construction of cargo facilities within the Port. In addition, the proposed dredging and disposal at the project sites are allowable uses under Section 30705(a)(1) and will take advantage of existing water depths in the Port (Section 30705(b)). When completed, the dredging will allow existing cargo terminals located in the project area to accommodate fully-loaded, deep-draft vessels, and will provide needed and geotechnically suitable fill material to complete the Pier 400 landfill.

The Commission must also find that the amendment conforms with Sections 30705(c) and 30708 of the Coastal Act, and in particular that the amendment provides for projects that will minimize disruption to fish, wildlife, and marine habitat, and that will be undertaken so as to minimize substantial adverse environmental impacts. The proposed amendment would permit activities that may generate short-term, adverse effects on marine habitat and water quality, primarily as a result of increased water column turbidity during and immediately after dredging and filling operations and where contaminated sediments are removed. As noted above, sediments in the dredging areas were analyzed for toxicity using bulk and elutriate chemistry testing and/or EPA and Corps of Engineers "Green Book" biological criteria for unconfined ocean disposal (Exhibits 4-6). Approximately 350,000 cubic yards of dredged material (representing 7 percent of the project's 5 million cubic yards of dredge material) was determined to be unsuitable for ocean disposal due to elevated levels of contaminants, primarily heavy metals and organic compounds found in fine-grained materials. EPA reviewed the proposed dredging and disposal plan and submitted comments to the Corps of Engineers in letters dated May 1 and May 14, 1998. EPA concluded in its May 1 letter (Exhibit 5) that:

*Based on the data provided by the Port of Los Angeles, EPA believes that the dredged materials in the western portion of test area FG-2B, the top layer depositional material in FM-1A and B, and the materials from DWP-VA and VB are not suitable for ocean disposal. EPA concurs on inclusion of all the coarse-grain dredged materials in Pier 400. Pending demonstration with all other relevant sections of CWA [Clean Water Act] and MPRSA [Marine Protection, Research and Sanctuaries Act], including evaluation of beneficial reuse of these proposed dredged materials, EPA concurs provisionally on ocean disposal for all the remaining material (identified above) evaluated as part of the Main Channel deepening project.*

In its May 14 letter (Exhibit 6), EPA stated that:

*EPA's previous recommendation regarding suitability for unconfined aquatic disposal of dredged materials from the Formation Material test areas (FM-1A and FM-1B) was that the formation materials were suitable for unconfined aquatic disposal while the depositional materials were not suitable for ocean disposal. EPA has conducted an additional evaluation of the data submitted by the Port of Los Angeles to delineate any suitable material in the upper layer. Based on this evaluation, EPA has identified two pockets of material in the depositional layer that are suitable for unconfined aquatic disposal. These areas are:*

- (1) the eastern portion of FM-1A. . . ; and,*
- (2) the western portion of FM-1B. . . .*

The Port will transport the 350,000 cubic yards of contaminated dredged materials associated with the Main Channel Deepening Project to its existing Anchorage Road contaminated sediment upland disposal site (Exhibit 2). The temporary, localized adverse effects on water column turbidity generated by dredging will be offset by the permanent removal of contaminated sediments from the marine environment. Adverse effects on benthic habitat and organisms will be more long-lasting due to disturbance of the seafloor at dredge locations and the borrow pits, and because several years of recolonization are necessary before the benthic community returns to normal. However, the removal of contaminated sediments represents a permanent benefit to the marine environment, and the filling of the outer harbor borrow pits to the level of the surrounding grade will use only clean dredged materials suitable for ocean disposal. In addition, all dredging and disposal activity will be conducted under the requirements of Corps of Engineers and Regional Water Quality Control Board permits (including permit conditions specific to dredging contaminated sediments) and will be carried out to protect water quality and minimize disruption to fish and wildlife populations.

In 1997, 1993, and 1992 the Commission reviewed and approved similar dredge and fill projects in the Port of Los Angeles associated with the Pier 400/Deep Draft Navigation Project, including both clean and contaminated sediments. The Commission's adopted findings for CD-57-92, CD-2-97, and Port Master Plan Amendments 12 and 17 describe the potential water quality impacts associated with the Pier 400/Deep Draft Navigation Project and the associated mitigation measures incorporated into that project. Those findings concluded that while the adverse water quality impacts from project dredging and filling would be significant, they would also be temporary and localized, and that with the implementation of project mitigation measures and Corps of Engineers and Regional Water Quality Control Board permit conditions, the project was consistent with the water quality policies of the Coastal Act.

The Commission finds that the dredge and fill projects incorporated in the subject plan amendment are similar to previous Port of Los Angeles, projects which were completed without generating unexpected, adverse impacts on marine resources. Dredging will marginally deepen existing deep-water habitat and not eliminate any valuable shallow-water areas. Although dredging will adversely affect benthic habitat on the Main Channel floor and other areas to be dredged, these areas will recolonize and impacts to harbor waters will not be significant. Therefore, the Commission finds that the proposed amendment providing for the Main Channel Deepening Project, and for designating dredging and disposal of clean dredged material unsuitable for beach replenishment as an allowable use at the outer harbor borrow pits, will not generate significant adverse impacts on water quality or marine resources and is consistent with Sections 30705(c), 30706(b), and 30708(a) of the Coastal Act.

The Commission also finds that the beneficial reuse of dredged sediments proposed by the Port of Los Angeles (sediments that are typically dumped at the LA-2 or LA-3 ocean disposal sites) conforms with Section 30708(d) of the Coastal Act, which states in part that port-related development shall provide for other beneficial uses consistent with the public trust. The Commission and other state and federal regulatory agencies that review port development and expansion in southern California consistently urge the Port of Los Angeles (and other ports and agencies that dredge in coastal waters) to pursue alternatives to ocean dumping of clean dredged sediments deemed unsuitable for beach replenishment. Reuse of dredged sediments has occurred when channel dredging coincided with landfill construction (for instance, the Pier 300 and 400 projects in the Port of Los Angeles, and the Pier J expansion in the Port of Long Beach). However, in situations when the ports undertake a stand-alone dredging project (either maintenance or deepening), clean dredged sediments typically go to the LA-2 or LA-3 ocean disposal sites due to an absence of alternative upland or in-water disposal sites or because construction schedules for separate dredging and landfill projects cannot be coordinated.

The Commission now has the opportunity to certify a proposal that would lead to the conservation of clean, dredged sediments for beneficial reuse. While not without some adverse, short-term impacts on marine resources at the outer harbor borrow pits, the proposal

would also generate: (1) benefits to the offshore marine environment by reducing the volume of dredged materials dumped at the LA-2 and LA-3 ocean disposal sites; and (2) benefits to the outer harbor marine environment by filling borrow pits back to the depth of the surrounding grade and eliminating these artificial submarine landscape features. In conclusion, the Commission finds that the proposed amendment provides support for future high-priority, port-related development, provides for the beneficial use of coastal resources within the Port of Los Angeles, and conforms with Section 30708(d) of the Coastal Act.

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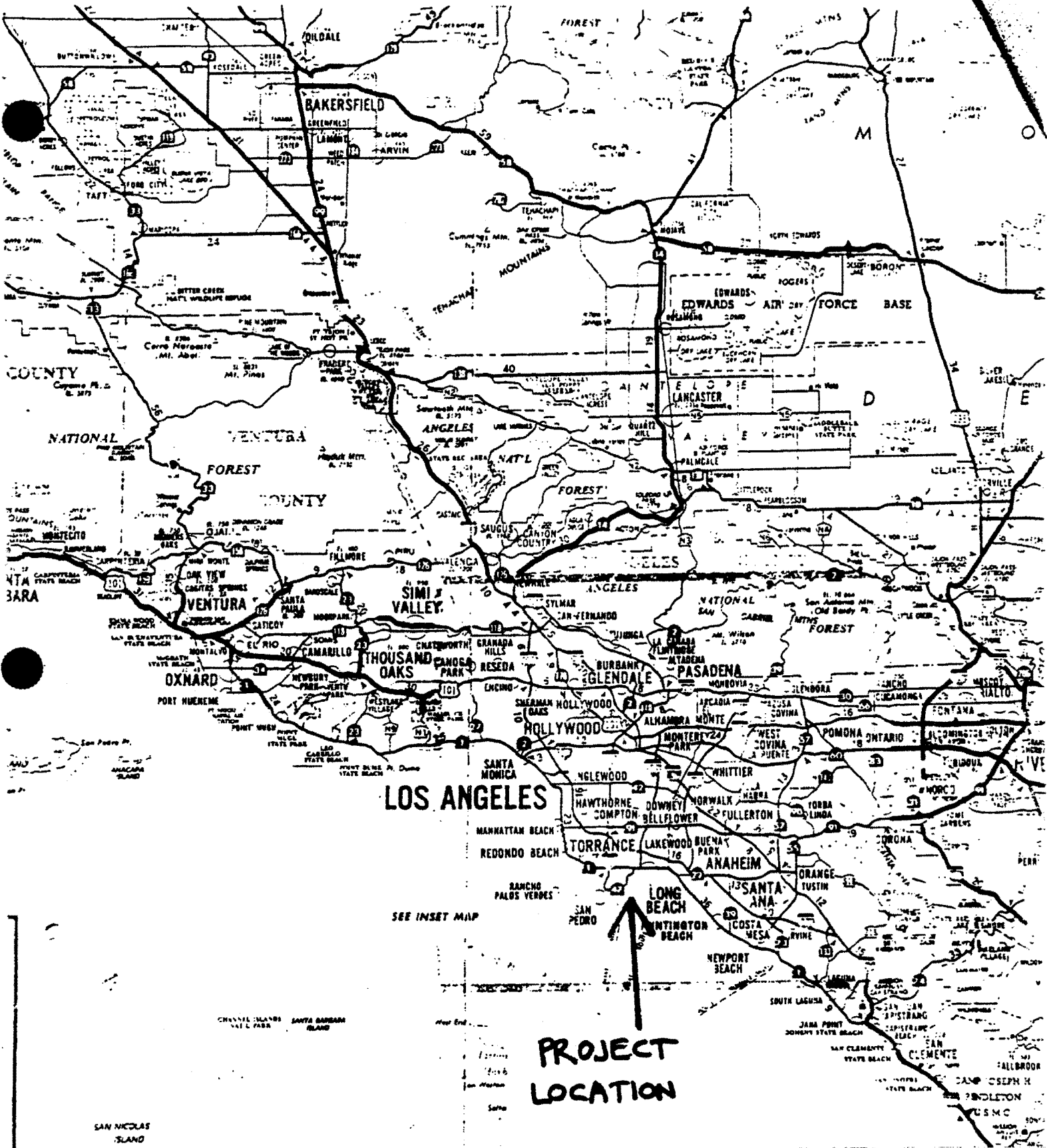


EXHIBIT NO. 1
APPLICATION NO.
POLA PMPA 19
California Coastal Commission

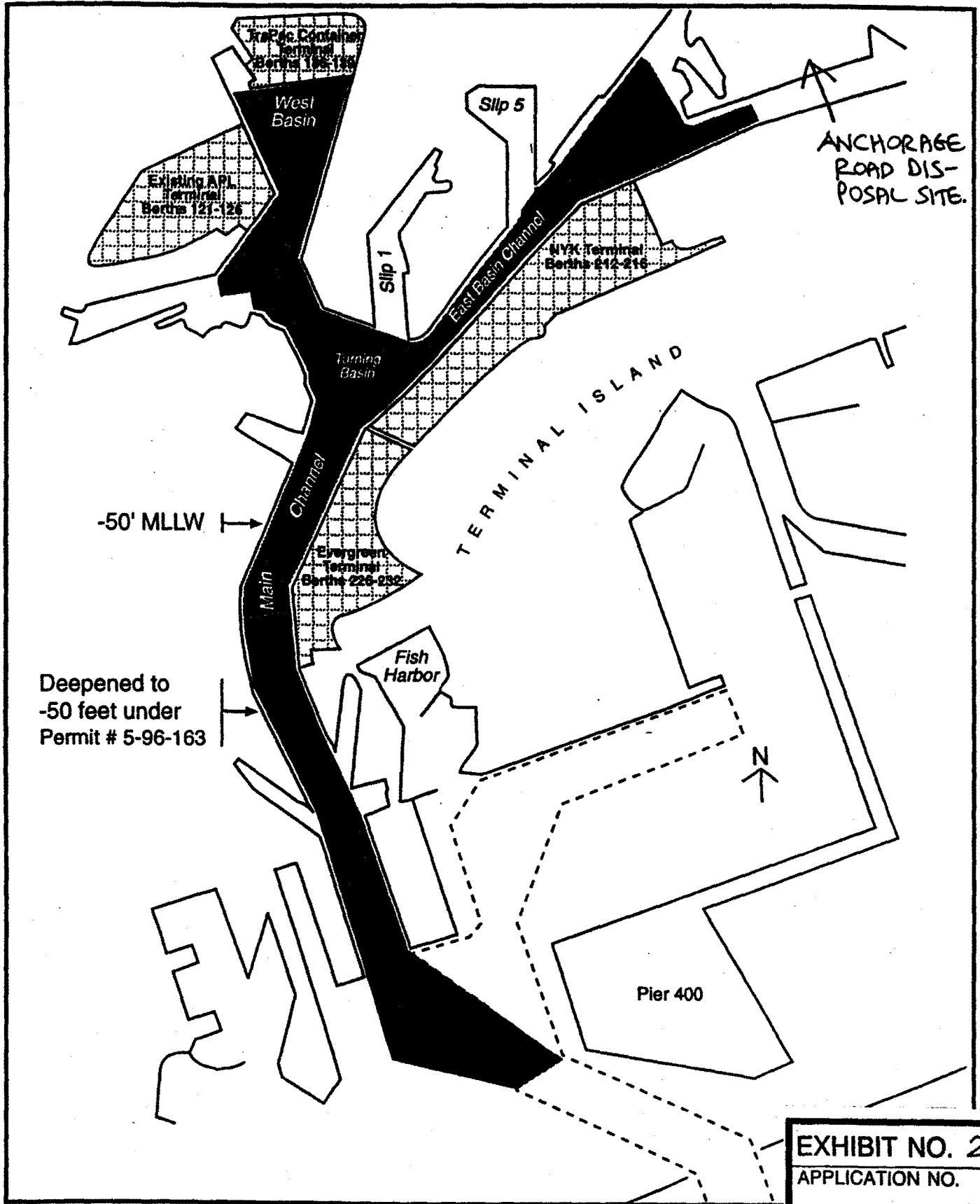


Figure 1  
Main Channel Deepening Project

EXHIBIT NO. 2
APPLICATION NO.
POLA PMPA 19
California Coastal Commission



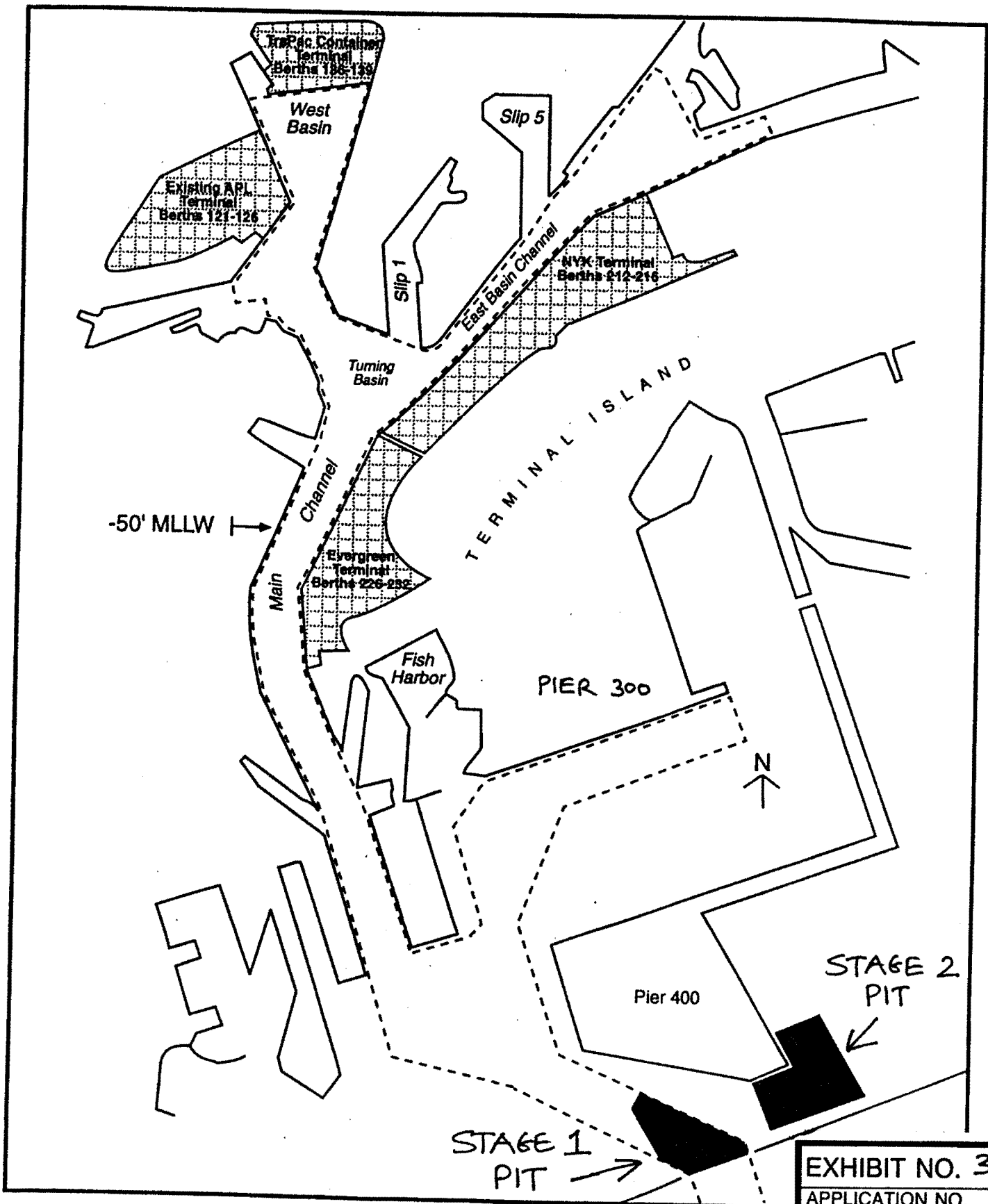


Figure 2  
Outer Harbor Borrow Pits

EXHIBIT NO. 3
APPLICATION NO.
POLA PMPA 19

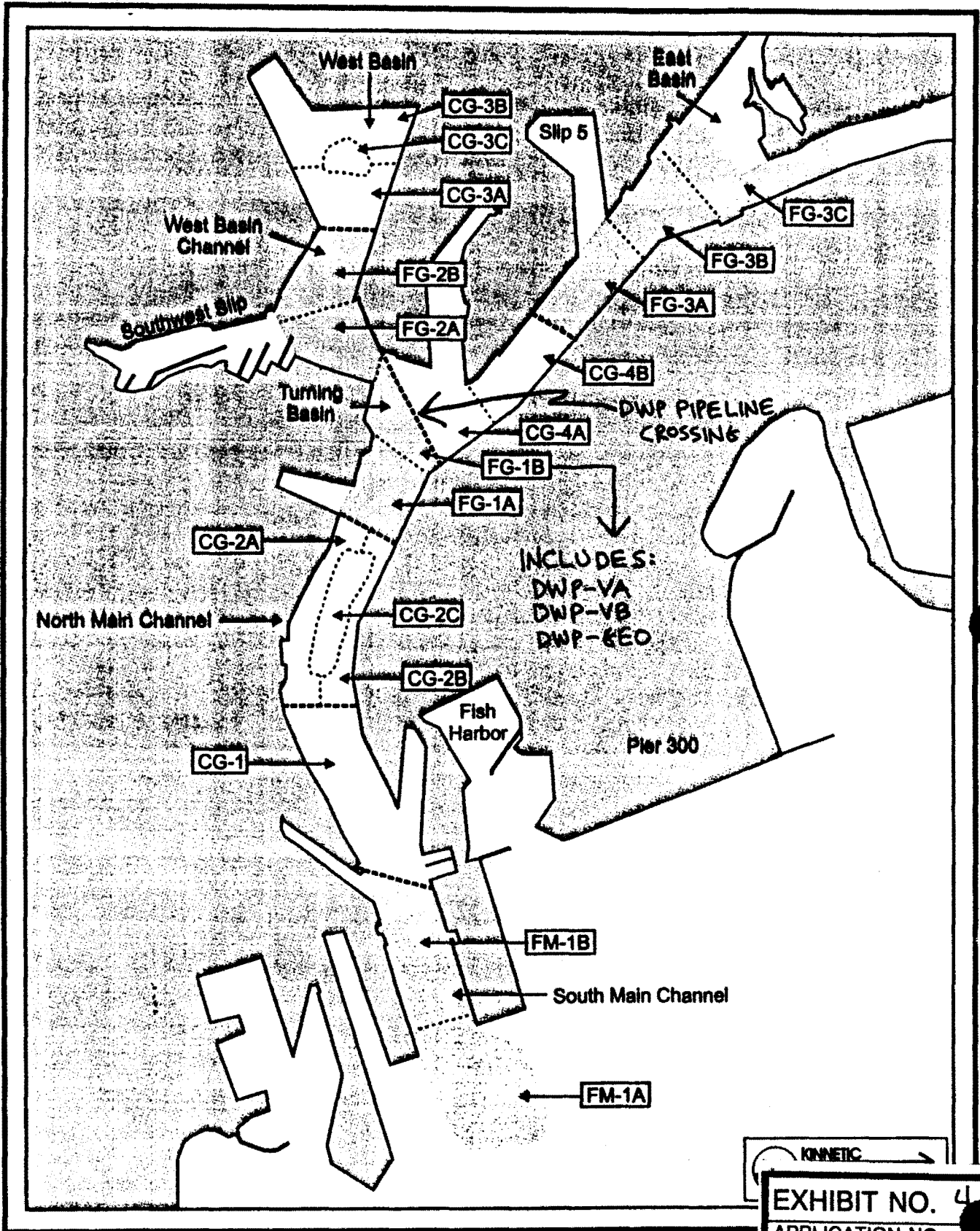


Figure 1. Environmental Investigation Area, Port of Los Angeles Channel Deepening

KINETIC EXHIBIT NO. 4 APPLICATION NO. POLA PMPA 19 California Coastal Commission
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region IX

75 Hawthorne Street

San Francisco, CA 94105-3901

RECEIVED  
MAY 04 1998

May 1, 1998

CALIFORNIA  
COASTAL COMMISSION

MEMORANDUM

SUBJECT: Port of Los Angeles, Channel Deepening Program (Main Channel)  
FROM: Steven John, U.S. Environmental Protection Agency  
TO: Cheryl Conel, U.S. Army Corps of Engineers


The Port of Los Angeles has proposed a project for the deepening of the Main Channel as well as utility crossing removal, replacement and construction. The proposed project would deepen the present -45 feet MLLW channel to -50 feet MLLW, plus two foot overdepth, to accommodate deeper draft vessels. Approximately 4.5 million cubic yards of material would be dredged as part of the deepening project. The Port has proposed to dispose of 2 million cubic yards of coarse-grain dredged material within the Pier 400 Stage II landfill while the remaining 2.5 million cubic yards of material are proposed for ocean disposal.<sup>1</sup>

In support of the proposed project, the Port has conducted physical and chemical evaluations and biological testing of the proposed dredged materials pursuant to the standard methods outlined in the joint Corps and EPA Testing Manual (Evaluation of Dredged Material Proposed for Ocean Disposal). A September 1997 report (Environmental Evaluation of Sediments for the Channel Deepening Program, Port of Los Angeles, Volumes I and II, prepared by Kinnetic Laboratories, Inc. and ToxScan, Inc.) presents the results of these evaluations.<sup>2</sup>

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<sup>1</sup> The Port, in anticipation of a deficit of material with geotechnical properties suitable for inclusion in the Pier 400 landfill, evaluated the areas within the Main Channel characterized by deposits of predominantly coarse-grain materials to depths of -65 feet MLLW to support potential Main Channel sand mining efforts.

<sup>2</sup> In addition to the September 1997 report, the Port has submitted additional support documents: Channel Deepening Project - draft (October 1997) and final (January 1998) Environmental Impact Report; Geotechnical Evaluation -- Main Channel Deepening Program (Fugro West, Inc., August 1997, Volumes I and II); and Final Report -- Chemical Analysis and Evaluation of Sediments, Stage 1 Pier 400, Main Channel Borrow Area, Directive VII (November 1996, Kinnetic Laboratories, Inc. and ToxScan, Inc.).

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EPA's review of the proposed action was conducted in accordance with the Federal Guidelines (40 CFR 230) published pursuant to Section 404 of the Clean Water Act (CWA), Section 103 of the Marine Protection, Research and Sanctuaries Act (MPRSA), and Section 10 of the Rivers and Harbors Act.

To facilitate the evaluation of the dredged materials in the project area these materials were split into three distinct categories: (1) coarse-grain sediments (predominantly sand and silty sand with interspersed layers of coarse and fine-grain sediments); (2) fine-grain sediments (silt, sandy silt, clay) with interspersed layers of coarse and fine-grain sediments; and (3) formation material of Malaga Mudstone (silt) deposits and Timms Point Silt (silt, sandy silt, silty sand) deposits. Coarse-grain materials, which are proposed for inclusion in the Pier 400 landfill, were evaluated only for bulk and elutriate chemistry -- no biological testing was conducted on these materials. As the fine-grain and formation materials were determined not to be suitable for structural fill for Pier 400, these materials were evaluated for ocean disposal with bulk chemistry and full Green Book biological testing.

Coarse-Grain Material -- these test areas were split into a top layer (existing elevation down to -52 feet MLLW, representing the proposed deepening project) and a bottom layer (-52 feet to -65 feet MLLW, for the purposes of sand mining material for the Pier 400 landfill). Bulk and elutriate chemistry testing of these proposed dredged materials generally showed low levels of heavy metal contamination and moderate organic contaminant levels in the top layer with even lower metal and organic compound levels in the lower layer. EPA believes all identified dredged materials from the coarse-grain test areas (i.e., CG-2, CG-3, and CG-4) are suitable for use in the Pier 400 landfill. Were these sediments to be proposed for unconfined aquatic disposal, EPA would recommend the sediments be evaluated by full Green Book biological testing.

Fine-Grain Material -- in general, the sediments from the fine-grain test areas had elevated levels of both heavy metals (copper, mercury, nickel, and lead were the most common metals) and organic compounds (DDT, DDE, PCBs being the most common). While the level of metal and organic analytes was consistently greater than for the coarse-grain materials, the levels were generally intermediate between ERL and ERM values.

In the suspended particulate phase bioassay, none of the seven fine-grain composites (FG-1A,B; FG-2A,B; FG-3A,B,C) produced significant toxicity in *Menidia* or *Mysidopsis*. While four of the composites (FG-1A,B; FG-2B; FG-3B) had significant decreased *Mytilus* survival, survival was generally near 87%. The Limiting Permissible Concentration (LPC) was not exceeded for any of these materials. In the solid phase bioassay, none of the seven fine-grain composites produced any significant increased mortality in *Nephtys* or *Mysidopsis* and only FG-2B produced significantly lower survival in *Rhepoxynius* (compared to the LA2 reference site, but not the LA3 reference site). The LPC was exceeded only for the FG-2B materials (due to a greater than 20% difference in survival between the test site and the LA2 reference site).

None of the seven fine-grain test areas composites produced substantially elevated bioaccumulation of metals or organic compounds. In general, bioaccumulation levels for lead, copper, mercury, DDD and DDE (for this evaluation these were the most commonly bioaccumulated contaminants), for *Macoma* and *Nephtys*, were in the range of 1.5 to 3 times those in tissues from LA2 and LA3 reference site specimens. Test area FG-2B had the widest range of contaminants found to bioaccumulate, generally to levels greater than found for the other fine-grain test areas.

Based on data from the bulk chemistry, the bioassays and the bioaccumulation evaluations, EPA believes that all the proposed dredged materials from test areas FG-1A, FG-1B, FG-2A, FG-3A, FG-3B, and FG-3C are suitable for aquatic disposal at either the LA2 or LA3 ocean disposal sites (there was no substantial difference in the bioassay or bioaccumulation results for these materials when compared to either the LA2 or the LA3 reference sites).

Due to the significant bioassay results and the wider range and higher bioaccumulation levels for test area FG-2B composite, EPA believes some materials in this test area are unsuitable for ocean disposal. Based on the bulk chemistry results for the individual core sample, an area of significantly elevated levels of contamination can be delineated to separate the remaining area of FG-2B which has substantially lower levels of metals and organic analytes. The area around test cores FG2-3 and FG2-8 (westward of a line drawn midway between FG2-6 and FG2-7 and between FG2-8 and FG2-9, then southward of a line drawn midway between FG2-8 and FG2-10) is unsuitable for ocean disposal or unconfined aquatic disposal. All remaining dredged materials in this test area are determined to be suitable for ocean disposal (see attachment to this memo for diagram delineation suitable and unsuitable areas in FG-2B).

DWP Pipeline Crossing -- The installation of a reclaimed water pipeline crossing the Turning Basin (test area FG-1B) will require dredging a trench to -70 feet MLLW, with two foot overdepth, generating between 100,000 and 150,000 cubic yards of material. Material from the channel edges resulted in significant mortality in the solid phase bioassay (DWP-VA) and significantly elevated bioaccumulation of several organic compounds (DWP-VB). Virgin dredged material (DWP-GEO; -52 to -72 feet MLLW) resulted in no significant mortality in the suspended particulate phase or solid phase bioassays and no elevated bioaccumulation of any analyte. Based on these data, EPA believes dredged materials from DWP-VA and DWP-VB are not suitable for ocean or unconfined aquatic disposal. While the dredged materials from DWP-GEO are suitable for ocean disposal, these materials are predominantly sand and appear to be suitable for inclusion in the Pier 400 landfill (similar in nature to the identified coarse-grain fill materials from the Main Channel). EPA recommends that POLA investigate the beneficial reuse of these materials as structural fill.

Formation Material -- the bulk chemistry results for these materials showed metal levels (cadmium, chromium, copper, mercury, nickel, and zinc) to be relatively highly elevated,

significantly more so than for either the coarse- or fine-grain materials from the inner reaches of the Main Channel. Organic compounds (DDT, DDE, and PCBs) were elevated to relatively high levels and were greater than for other dredged materials in the Main Channel. Supplemental sampling of these materials demonstrated that the metals were found primarily in the formation (lower layer) materials while the organic compounds were distributed primarily in the depositional (top layer) materials.

In the suspended particulate phase bioassay, neither of the formation material test areas (FM-1A or B) produced significant toxicity in *Menidia* or *Mysidopsis*. Both test areas composites had significant decreased *Mytilus* survival, however the LPC was not exceeded for either of these test areas. In the solid phase bioassay, test area FM-1A had no significant decrease in survival for either *Rhepoxynius* or *Mysidopsis*, but *Nephtys* survival was significantly different from both reference sites. The survival differences were less than 20% so the LPC was not exceeded. In test area FM-1B, there was no observed significant toxicity to *Nephtys* or *Mysidopsis*, but *Rhepoxynius* survival was significantly lower for the test materials than for the LA2 reference site. Due to these significant results, the LPC was exceeded for LA2.

*Macoma* and *Nephtys* specimens exposed to materials from FM-1A showed slight bioaccumulation of copper, mercury and lead on the order of 1.5 times that of the reference site specimens. There was no statistically significant bioaccumulation of any analyte for specimens exposed to materials from test area FM-1B.

While the formation material underlying the depositional layer of these test areas has elevated levels of metals, it appears these are from non-anthropogenic sources and are not subject to bioaccumulation. These results are similar to previous Port of Los Angeles evaluations on Malaga Mudstone and Timms Point Silt deposits in which EPA approved ocean disposal of these types of materials. EPA believes that the formation materials in both test area FM-1A and B are suitable for ocean or unconfined aquatic disposal.

Based on the elevated levels of organic compounds in the depositional layer, and the lack of significant bioassay results from previous evaluations of formation materials similar to those found in the project area, EPA believes the significant bioassay results for the FM test areas are due to the depositional layers. Therefore, EPA believes that these depositional materials are not suitable for ocean disposal and should be disposed of at an approved upland sites or a confined aquatic disposal facility.

Bathymetric Surveys -- For the subsection of test area FG-1B determined not to be suitable for ocean disposal, EPA recommends these materials be dredged and disposed of prior to dredging the remaining FG-1B materials determined to be suitable for ocean disposal. In test areas FG-1B, FM-1A and FM-1B, EPA recommends that a bathymetric survey be conducted following removal of the unsuitable material and prior to dredging of the materials in these test areas

determined to be suitable for ocean disposal. Final approval by the Corps, with EPA concurrence, for ocean disposal of the suitable material from these three test areas should be pending review of this bathymetry survey and demonstration that all unsuitable materials have been removed from the dredge site.

Summary -- Based on the data provided by the Port of Los Angeles, EPA believes the dredged materials in the western portion of test area FG-2B, the top layer depositional material in FM-1A and B, and the materials from DWP-VA and VB are not suitable for ocean disposal. EPA concurs on inclusion of all the coarse-grain dredged materials in Pier 400. Pending demonstration with all other relevant sections of CWA and MPRSA, including evaluation of beneficial reuse of these proposed dredge materials, EPA concurs provisionally on ocean disposal for all the remaining material (identified above) evaluated as part of the Main Channel deepening project.

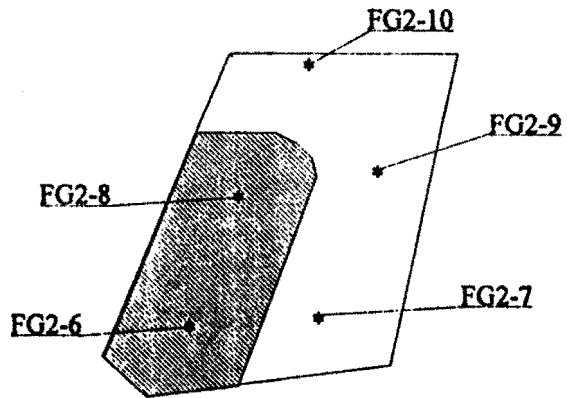
Thank you for the opportunity to review and comment on this proposed action. If you have any questions about EPA's comments, please contact me at 213/452-3806. EPA's final concurrence on the suitability of dredged materials from the proposed project for ocean disposal will be included in our comments on the Corps Public Notice.



attachment

cc: POLA  
CCC

**Attachment**

**Area FG-2B**



 **Unsuitable**  
 **Suitable**





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

RECEIVED  
MAY 18 1998

May 14, 1998

CALIFORNIA  
COASTAL COMMISSION

MEMORANDUM

SUBJECT: Port of Los Angeles Channel Deepening Program (Main Channel)  
FROM: Steven John, U.S. Environmental Protection Agency  
TO: Cheryl Conel, U.S. Army Corps of Engineers

This Memorandum amends EPA's May 1, 1998 memo regarding the suitability of dredged materials from the proposed Main Channel deepening project for unconfined aquatic disposal at either the LA2 or LA3 ocean disposal sites.

EPA's previous recommendation regarding suitability for unconfined aquatic disposal of dredged materials from the Formation Material test areas (FM-1A and FM-1B) was that the formation materials were suitable for unconfined aquatic disposal while the depositional materials were not suitable for ocean disposal. EPA has conducted an additional evaluation of the data submitted by the Port of Los Angeles to delineate any suitable material in the upper layer. Based on this evaluation, EPA has identified two pockets of material in the depositional layer that are suitable for unconfined aquatic disposal. These areas are:

(1) the eastern portion of FM-1A from a line drawn midway between FM1-1 and FM1-2 and between FM1-3 and FM1-4, then northeastward to the channel edge at a point midway between FM1-3 and FM1-5; and,

(2) the western portion of FM-1B from a line drawn midway between FM1-9 and FM1-10 and between FM1-7 and FM1-8, then southwestward to the channel edge at a point midway between FM1-6 and FM1-8.

The attached figure provides a diagram of the FM test areas and identifies the two areas of the depositional layer determined to be suitable for unconfined aquatic disposal. The remaining depositional layer dredge material within the FM test areas is unsuitable for ocean disposal.<sup>1</sup>

<sup>1</sup>The data submitted by the Port does not define the actual elevations (relative to MLLW) delineating the depositional and formation layers. EPA recommends that the Port be required to provide this information for inclusion in the Corps' Public Notice.

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All the other recommendations in EPA's May 1, 1998 memorandum remain effective. If you have any questions about this re-evaluation of the depositional layer of the formation material test areas, please contact me at 213/452-3806. EPA's final concurrence on the suitability of dredged materials from the proposed deepening project for ocean disposal will be included in our comments on the Corps Public Notice.

attachment

cc: POLA  
CCC

Attachment

Delineation of Suitable and Unsuitable Dredged Materials (Depositional Layer)  
Test Areas FM-1A and FM-1B

