

CALIFORNIA COASTAL COMMISSION

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STAFF REPORT AND RECOMMENDATION
ON CONSISTENCY CERTIFICATION

Consistency Certification No.	CC-42-98
Staff:	LJS-SF
File Date:	3/31/98
3 months	6/30/98
6 months	9/30/98
Commission Meeting:	6/8-11/98

APPLICANT: Port of Los Angeles

DEVELOPMENT

LOCATION: LA-3 Ocean Disposal Site, five miles southwest of Newport Beach, Orange County (Exhibit 1).

DEVELOPMENT

DESCRIPTION: Disposal of up to 3 million cubic yards of clean sediment dredged from the Port of Los Angeles.

SUBSTANTIVE FILE DOCUMENTS:

1. CC-80-97 and CC-2-96 (Dredge disposal at LA-3)
2. Port of Los Angeles Port Master Plan, as amended (1997)
3. Port of Los Angeles Port Master Plan Amendment No. 19 (proposed, 1998)
4. Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, Environmental Protection Agency and the Corps of Engineers, February, 1991.

EXECUTIVE SUMMARY

The Port of Los Angeles submitted a consistency certification for disposal of up to 3 million cubic yards of clean sediment at the LA-3 ocean disposal site, located five miles southwest of Newport Beach, Orange County. The Commission has previously authorized dredged material disposal projects at this location. The dredged sediment will be generated by a channel deepening project in the Port of Los Angeles; a consistency certification is needed to authorize the disposal of the dredged material at the EPA-approved disposal site. The dredged sediment designated for disposal at LA-3 is not suitable for beach replenishment due to its fine grain size. The proposed project is the least environmentally damaging disposal alternative for the dredged sediments and will have no significant adverse impacts to marine resources. Disposal will generate temporary impacts to benthic organisms and a temporary increase in water turbidity. Chemical analysis of the sediments and bioassay tests indicate that the subject dredge material is suitable for ocean disposal, and will not generate any significant, adverse impacts to water quality or marine resources in or around the LA-3 disposal site or in adjacent coastal zone waters. The materials meet the applicable EPA/Corps of Engineers "Green Book" standards and are suitable for ocean disposal. The project is consistent with the dredging, water quality, marine resources, and sand supply policies of the California Coastal Management Program (CCMP; Sections 30230, 30231, and 30233 of the Coastal Act). The proposed project will not adversely affect commercial or recreational boating or fishing in the area, and is consistent with the recreation and boating policies of the CCMP (Sections 30234, 30234.5, 30220, and 30224 of the Coastal Act).

STAFF SUMMARY AND RECOMMENDATION:

I. Project Description.

The Port of Los Angeles proposes to dispose up to three million cubic yards (mcy) of clean dredged sediment at the EPA-designated LA-3 ocean disposal site, located five miles southwest of Newport Beach at water depths ranging from 1,345 to 1,575 feet (Exhibit 1). In June 1998 the Commission is scheduled to review a port master plan amendment from the Port of Los Angeles for a five million cubic yard channel and turning basin deepening project that will provide safe transit for new-generation, deep-draft container ships (Exhibit 2). The amount of material to be placed at LA-3 will depend on how much of the aforementioned five mcy of dredged material will be disposed at locations in the Port of Los Angeles. Approximately 350,000 cubic yards of dredged sediments unsuitable for ocean disposal will be placed at the Port's upland disposal site at Anchorage Road. Approximately two million cubic yards of construction-quality dredged sand may be disposed at the under-construction Pier 400 landfill. Finally, up to 2.7 mcy of dredged material could be disposed in borrow pits

in the outer harbor, should an equal volume of construction-quality sands be removed from borrow pits in the outer harbor for use in the Pier 400 landfill. However, it is unlikely that all of this latter volume will be needed at Pier 400 or dredged from the borrow pits. The Port believes that between one and three mcy will need to be disposed at LA-3, and it is this action which comprises the consistency certification (Exhibit 3).

II. Status of Local Coastal Program.

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

III. Applicant's Consistency Certification.

The Port of Los Angeles has certified that the proposed activity complies with California's approved coastal management program and will be conducted in a manner consistent with such program.

IV. Staff Recommendation.

The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission concur with the Port of Los Angeles' consistency certification.

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

Concurrence

The Commission hereby **concurs** with the consistency certification made by the Port of Los Angeles for the proposed project, finding that the project is consistent with the California Coastal Management Program.

V. Findings and Declarations.

The Commission finds and declares as follows:

A. Dredging and Filling. Section 30233 of the Coastal Act provides the following in relevant part:

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

...

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

...

(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.

...

The proposed project is the result of a channel deepening project in the Port of Los Angeles, which the Commission is scheduled to review under Port Master Plan Amendment No. 19 at its June 1998 meeting. The disposal of the dredge materials needs to be examined for consistency with Section 30233 of the Coastal Act. Under Section 30233, fill of open waters, including disposal of dredge materials, is limited to those cases where the proposed project is an allowable use, is the least damaging alternative, and where mitigation measures have been provided to minimize environmental impacts. The disposal of dredged materials from the expansion of port facilities is an allowable use under Section 30233(a)(1). The proposed disposal location is an EPA-approved disposal site, and is the least damaging alternative for disposal of clean dredged materials (the dredged sediments are not suitable for beach replenishment due to grain site incompatibility). As discussed below, the project will have no significant impacts on coastal resources and no additional mitigation measures (beyond the standard conditions attached to the Corps of Engineers permit for disposal at LA-3) are necessary. Therefore, the Commission finds that the proposed project is consistent with the dredge and fill policies of the California Coastal Management Program (Section 30233 of the Coastal Act).

B. Water Quality and Marine Resources: Section 30230 of the Coastal Act states that:

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

Section 30231 of the Coastal Act states that:

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.

The proposed project involves the disposal at LA-3 of up to 3 million cubic yards of dredged sediment from the Port of Los Angeles' upcoming channel deepening project. LA-3 is located on the slope of Newport Canyon at a depth of approximately 1,500 feet, five miles southwest of Newport Harbor. The site is situated at the foot of a submarine canyon and receives sediments from erosion and nearshore transport; EPA has recognized the LA-3 ocean site as an interim site for disposal of dredged material from the Port of Los Angeles. The Commission has previously concurred with other dredge disposal projects at LA-3. Deposition of dredged materials has altered the character of the approximately five-square-mile LA-3 site. Site surveys indicate a localized reduction in infaunal density, diversity, and species richness in the benthic community, and a change in the sediment composition when compared to adjacent areas. Sediments at the site do not contain elevated levels of metals or hydrocarbons.

Although the disposal site is located five miles offshore, and thus outside the state's coastal zone, an adverse effect on marine habitat from dredged material disposal could affect the coastal zone. The primary concern regarding ocean disposal of dredged material is the presence and level of contamination in the sediments, and the impacts that any contaminants present could have on marine resources. Analysis of the sediments, including bioassay, bioaccumulation, and chemical tests, performed in the summer of 1997, indicate that the material complies with the "Green Book" standards (Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, Environmental Protection Agency and the Corps of Engineers, February, 1991), and is therefore suitable for ocean disposal. The EPA

has also reviewed the compliance with the Green Book tests and has determined that the sediments are suitable for disposal at LA-3 (Exhibits 4 and 5).

While the project will result in minor, short-term impacts to existing benthic habitat, the disposal area will recolonize over several years. Turbidity increases will be localized and short-term. The Commission previously found that these types of impacts are not significant when it concurred with other dredge material disposal operations at LA-3 and at other southern California EPA-designated ocean disposal sites. In conclusion, the proposed disposal of clean dredge materials at LA-3 will not significantly affect coastal marine resources. Therefore, the Commission finds that the proposed project is consistent with the marine resources and water quality protection policies of the California Coastal Management Program (Sections 30230, 30231, and 30233 of the Coastal Act).

C. Recreation and Boating. The Coastal Act states in Section 30234 that:

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

Section 30234.5 states that:

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

Section 30220 states that:

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

Section 30224 states that:

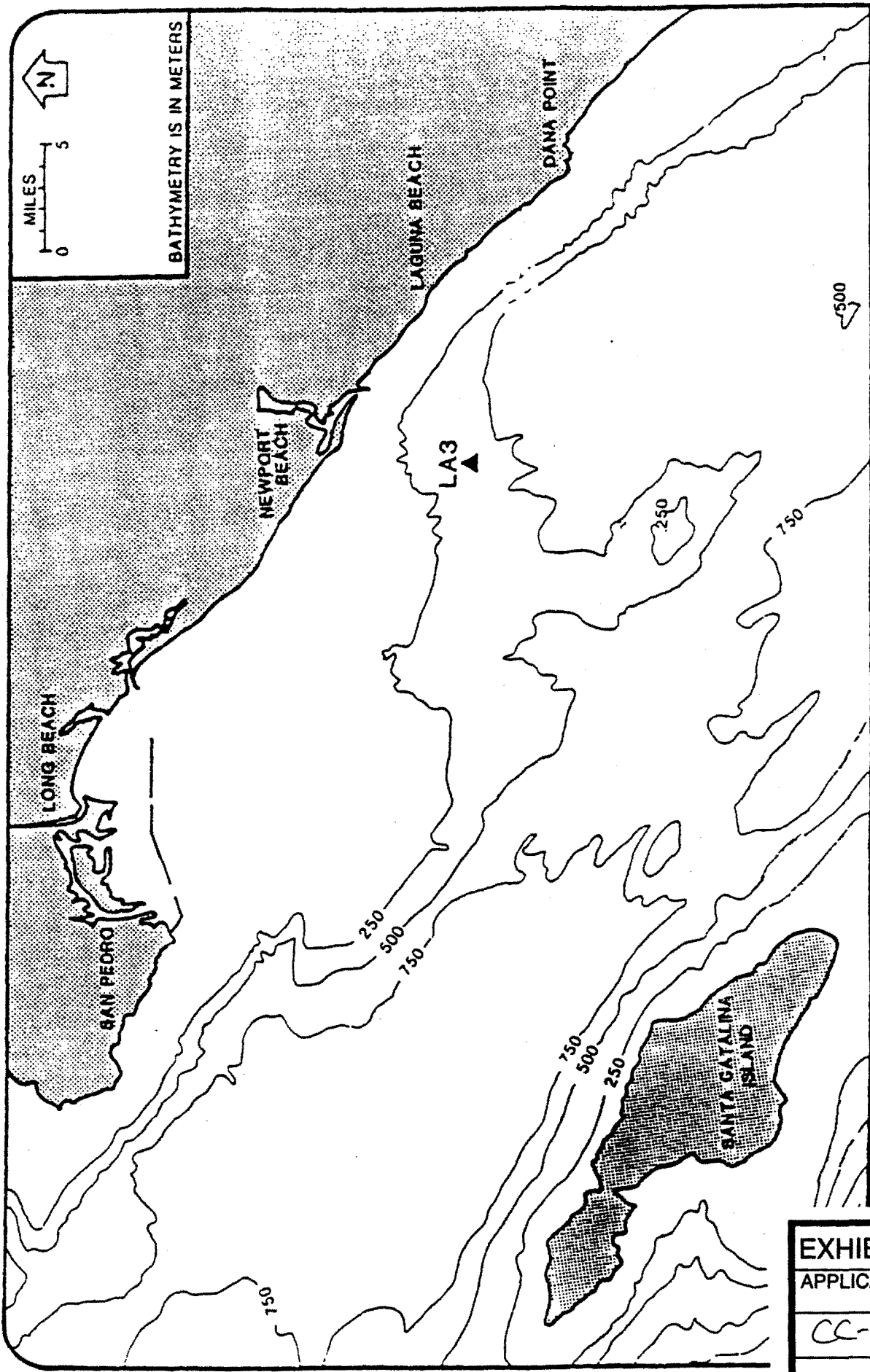
Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors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

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

D. Sand Supply. The Coastal Act provides for protection of sand supply in the littoral system. Specifically, Section 30233(b) states that:

(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.

The Port of Los Angeles proposes to dispose up to 3 million cubic yards of dredged material at LA-3, an EPA-approved ocean dredge material disposal site five miles offshore from Newport Beach. Since this site sits in approximately 1,500 feet of water, the material would not be available for beach replenishment after disposal. Analysis indicates that the dredged material is not suitable for beach placement due to the predominately small grain size of the material. Since the material is predominately silt and clay, wave energy would move this relatively fine material off the beaches and out of the littoral system if the material were placed on the beach or in the nearshore zone. Therefore, the Commission finds that the dredged materials are not suitable for beach replenishment and that the proposed disposal at LA-3 is consistent with the sand supply policies of the California Coastal Management Program (Section 30233 of the Coastal Act).



LA-3 DISPOSAL SITE LOCATION MAP

EXHIBIT NO. 1
APPLICATION NO.
CC-42-98
California Coastal Commission

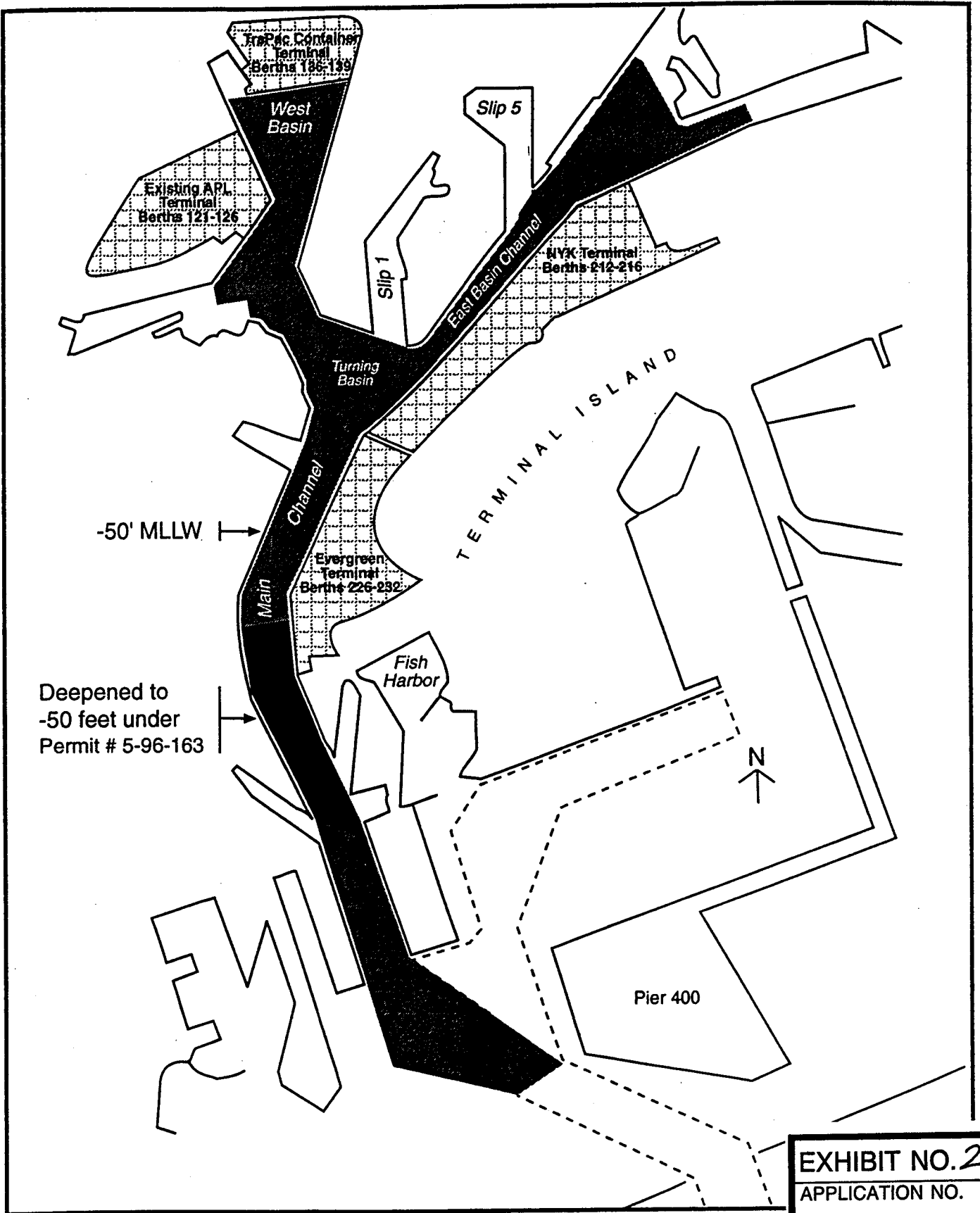


Figure 1
Main Channel Deepening Project

EXHIBIT NO. 2
APPLICATION NO.
CC-42-98
California Coastal Commission

Consistency Certification for Disposal of Dredge Material at the LA-3 Ocean Disposal Site



**Planning & Research
March 1998**

EXHIBIT NO. 3
APPLICATION NO.
CC-42-98
California Coastal Commission

I. INTRODUCTION

The Port of Los Angeles is currently the second largest container port in the United States and ninth largest in the world. In calendar year 1997, the port handled over 2.9 million TEUs (twenty-foot equivalent units), a 40 percent increase from 1990. Current cargo projections show continued growth in containerized cargo throughput at the port. Recent trends in container vessel designs include larger vessels with the capability of handling over 6,000 TEUs. The designs of these new container vessels have drafts of up to 46 feet. Currently, five shipping lines calling at San Pedro Bay have container vessels which draft 46 feet. Additionally, a significant portion of new container ships currently being built will have drafts of 46 feet. Currently, the port cannot handle these vessels in the Main Channel or West and East Basins due to the current channel depths of -45 feet.

In order for the Port of Los Angeles to continue to accommodate the projected growth in containerized cargo throughput and the deeper draft vessels which will be carrying the cargo, the existing channel depths must be deepened five feet to -50 feet MLLW. This channel depth is necessary to accommodate the deeper draft container vessels and provide for an adequate under keel clearance for tides and safety purposes. In addition to the Main Channel, the Inner Harbor Turning Basin, West Basin, East Basin and East Basin Channel as well as selected container berths will also be deepened to -50 MLLW.

Various locations have been assessed for the disposal of up to 5 million cubic yards of material generated from the project. Up to 2 million cubic yards of material is planned to be placed in the Pier 400 fill. The remaining material is to be disposed either at two borrow pits in the Outer Harbor of the port, ocean disposal at LA-3 or at an upland site for material not suitable for ocean disposal. Approval to dispose at the Outer Harbor borrow pits has been sought through a Port Master Plan amendment. Port Master Plan amendment No. 19 addresses the Main Channel Deepening project as well as the creation and use of the Outer Harbor borrow pits. Upon the certification of the port master plan amendment, the borrow pits would be available to handle clean dredge material.

Use of the LA-3 ocean disposal site requires a consistency certification. Coastal Commission staff has found that disposal of dredged material at the ocean disposal site may affect the coastal zone. Therefore, the option to dispose of up to 3 million cubic yards of dredge material from the port's Main Channel deepening program at the LA-3 ocean disposal site must be evaluated for consistency with the California Coastal Management Program (CCMP).

As required by Federal regulation (15CFR Section 930.57), an applicant for a Federal license or permit must submit a certification that the proposed activity complies with and will be conducted in a manner consistent with California's Coastal Management Program (CCMP). The Port has applied to the U.S. Corps of Engineers for permit approval of both the Main Channel deepening project and disposal of up to 3 million cubic yards at LA-3 as authorized by Section 10 of the Rivers and Harbors Act of 1899 and Section 103 of the Marine Protection, Research and Sanctuaries Act. Therefore, this consistency certification has been prepared in response to the above referenced Federal regulations.

II. COASTAL ACT POLICIES AND POTENTIAL EFFECTS

The following section addresses the relevant policies from the Coastal Act and a statement of consistency for each policy.

Section 30701

The Legislature finds and declares that:

(a) The ports of the State of California, including 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 commercial port districts within the State of California, including 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 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.

The deepening of the Main Channel and related navigable channels in the port from the current -45 feet to -50 feet will allow the port to accommodate the deeper draft container vessels that are being brought into service and provide an adequate under keel clearance for tides and safety purposes. Providing the option of disposing up to 3 million cubic yards of dredged material from this project at the LA-3 ocean disposal site will allow the port to handle the new generation of container vessels through existing navigable channels and landside facilities thereby minimizing or eliminating the need for future dredge and fill activities in new areas of the state. Therefore, the proposed activity is consistent with the stated CCMP policy.

Section 30705

(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 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.

The dredged material from the Main Channel deepening project has been tested for toxicants. Only the fine-grained sediments determined to be suitable for unconfined, open-ocean disposal by the U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (COE) will be disposed of at LA-3. Disposal of dredged material at the LA-3 ocean disposal site will adhere to USEPA's site management plan and monitoring program requirements. Therefore, the proposed activity is consistent with this policy of the CCMP.

Section 30220

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

Use of LA-3 as an ocean disposal site for up to 3 million cubic yards of material will not affect recreational activities, including fishing, in the coastal zone. Past use of the LA-3 ocean disposal site has not resulted in any significant impacts on recreational activities in the coastal zone.

The disposal of dredged material will adhere to all testing and site management requirements as identified by USEPA for ocean disposal. Therefore, the proposed activity is consistent with this policy of the CCMP.

Section 30230

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

Resources that could be impacted by the use of the LA-3 ocean site for disposal of dredged material include marine fisheries. The disposal of dredged material at this site will smother organisms living on and below the ocean floor and temporarily increase turbidity in the water column. However, the area affected by the dredged material disposal should have an opportunity to recolonize and that the species found at the LA-3 site are found throughout the Southern California bight. Therefore, the smothering of organisms by the disposal of dredged material will not affect the marine resources of the coastal zone. The increase in turbidity associated with the disposal operation at LA-3 will be short-term and will not result in any significant impacts to marine resources.

The Port of Los Angeles will meet all testing and disposal requirements of USEPA. Therefore, the

proposed activity is consistent with this policy of the CCMP.

Section 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 long shore current systems.

The LA-3 ocean disposal site would be used for the disposal of up to 3 million cubic yards of fine-grained dredged materials from the Main Channel deepening project. The proposed disposal of dredged material would be limited to sediments determined to be suitable for unconfined, open-ocean disposal by the USEPA. Disposal at the LA-3 site would meet all USEPA requirements to minimize adverse environmental effects. Compliance will result in the activity being consistent with the stated CCMP policy.

The use of fine-grained dredged material proposed for disposal at LA-3 for use as beach replenishment is infeasible due to the high silt/clay composition of these sediments.

Section 30234.5

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

The Port's use of the LA-3 site will meet EPA criteria for ocean disposal of dredge material. Past use of the LA-3 site has not resulted in any significant impacts to fishing activities in the coastal zone. The Port's disposal of suitable dredge material at the LA-3 site is not expected to result in any change in impacts from past disposal activities at LA-3. Therefore, the proposed activity is consistent with the stated CCMP policy.

III. CONSISTENCY CERTIFICATION

The Port of Los Angeles has applied to the Corps of Engineers for permit approval for the Main Channel deepening project and disposal of up to 3 million cubic yards at the LA-3 ocean disposal site. This consistency certification finds that the proposed activity complies with California's approved coastal zone management program and will be conducted in a manner consistent with such program.

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.¹

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.²

¹ 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.

² 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.).

EXHIBIT NO. 4
APPLICATION NO.
CC-42-98

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.

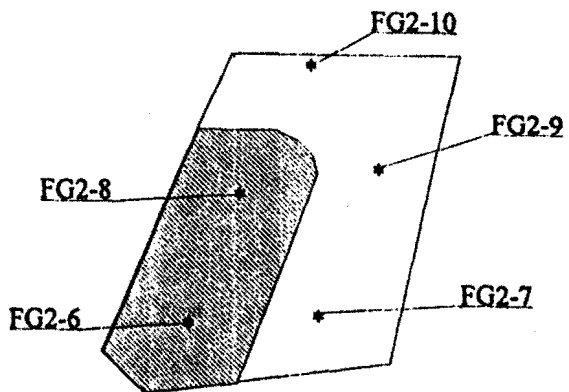
Thank you for the opportunity to review and comment on this proposed action. If you have any questions about EPA's comments, please contact me at 213/452-3806. EPA's final concurrence on the suitability of dredged materials from the proposed project for ocean disposal will be included in our comments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



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Attachment

Area FG-2B



 **Unsuitable**
 **Suitable**



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

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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 *Steven*
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.¹

¹The 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.

EXHIBIT NO. 5
APPLICATION NO.
CC-42-98

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

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CCC

EX.5

Attachment

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

