

**CALIFORNIA COASTAL COMMISSION**

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# F 5d

**STAFF REPORT AND RECOMMENDATION****ON CONSISTENCY CERTIFICATION**

Consistency Certification No.	CC-50-97
Staff:	MPD-SF
File Date:	4/14/97
3 Months:	7/14/97
6 Months:	10/14/97
Commission Meeting:	5/16/97

**APPLICANT:** Port of San Diego

**DEVELOPMENT****LOCATION:**

National City Marina, east side of San Diego Bay (Exhibit 2) and LA-5, an EPA-designated ocean disposal site located 5.4 miles southwest of Point Loma, San Diego (Exhibit 1)

**DEVELOPMENT****DESCRIPTION:**

Disposal of approximately 638,000 cubic yards of dredged material

**SUBSTANTIVE FILE DOCUMENTS:**

1. CD-56-90 (EPA, designation of LA-5).
2. Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, Environmental Protection Agency and the Corps of Engineers, February, 1991.
3. Port of San Diego Master Plan Amendment No. 19 (National City Marina).
4. Consistency Certifications CC-61-92 (Southwest Marine, Disposal at LA-5) and CC-101-92 (SDG&E, Disposal at LA-5).

## EXECUTIVE SUMMARY

The Port of San Diego has submitted a consistency certification for the disposal of 638,000 cubic yards (cu. yds.) of dredged material at LA-5, an Environmental Protection Agency (EPA)-designated ocean disposal site located 5.4 miles southwest of Point Loma, San Diego. The material is being dredged from the National City Marina, during the construction of a 24-acre marina on the north side of the Sweetwater Flood Control Channel and on the east side of San Diego Bay. The marina construction has already been authorized; only the disposal activities require federal consistency review at this time.

The quality of the material proposed for ocean disposal has been evaluated by The Port of San Diego. The material has passed the necessary ("Green Book") water quality and biological testing standards. Based on these test results, the disposal will not adversely affect marine resources, including commercial and recreational fishing, environmentally sensitive habitat, or the water quality of the coastal zone. The project is therefore consistent with the marine resources, fishing, habitat, and water quality policies (Sections 30230, 30231, 30234, 30234.5, and 30240 of the Coastal Act). In addition, the material is not predominantly sand, and the project therefore will not affect sand resources of the coastal zone. The project is therefore consistent with the sand supply policy (Section 30233(b) of the Coastal Act.

## STAFF SUMMARY AND RECOMMENDATION:

**I. Project Description.** The Port of San Diego has submitted a consistency certification for the disposal of 638,000 cubic yards (cu. yds.) of dredged material at LA-5, an EPA-designated ocean disposal site located 5.4 miles southwest of Point Loma, San Diego. The material is being dredged from the National City Marina (Exhibit 2), during the construction of a 24-acre marina on the north side of the Sweetwater Flood Control Channel and on the east side of San Diego Bay. The dredging and other activities related to the construction of the marina located within the Port of San Diego have already been authorized under, and are consistent with, the Port's certified Port Master Plan (see Port of San Diego Master Plan Amendment No. 19 (National City Marina), which the Commission certified on April 11, 1996). Therefore, under Section 30719 of the Coastal Act, those activities are deemed to be consistent with the California Coastal Management Program and no further federal consistency review is required. However the ocean disposal activities are outside of the port's jurisdiction and require a federally-issued permit from the Corps of Engineers. Therefore the disposal activities require this additional federal consistency review.

**II. Status of Local Coastal Program.** The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) or Port Master Plan (PMP) of the affected area. If the LCP or PMP 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 or PMP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The Port of San Diego port master plan has been incorporated into the CCMP.

**III. Applicant's Consistency Certification.** The Port of San Diego 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 resolution:

**Concurrence**

The Commission hereby **concurs** with the consistency certification made by the Port of San Diego 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. Background/LA-5 Site Designation.** In analyzing The Port of San Diego's consistency certification, the Commission will rely on the findings it adopted in reviewing EPA's LA-5 site designation consistency determination (CD-56-90), since those findings addressed the coastal resource protection issues raised by disposal at LA-5. Therefore those findings are hereby incorporated by reference into these findings.

In reviewing CD-56-90, the Commission noted that the designation of LA-5 was intended, for the most part, to support the dredging needs of the Port of San Diego, its tenants (including commercial and recreational fishing boats, ship building and repair, cargo transportation, and recreational boating), the U.S. Navy, the Corps of Engineers (Corps), and some of the recreational harbors in the area. The Coastal Act supports and encourages protection of many of those uses.

The LA-5 site had been previously designated an interim dredged material disposal site between 1977 and 1988. After that interim designation lapsed, all dredge disposal activities at LA-5 ceased. Since LA-5 was one of the main disposal options available, most dredging activities in San Diego Bay stopped. However, dredging in this area is necessary to maintain coastal-dependent activities including commercial and sports fishing, recreational boating, and port-related activities. The Commission found that the LA-5 site designation supported these coastal-dependent activities.

At the same time, the ocean disposal of dredged material has the potential to adversely affect marine species, including those that are recreationally and commercially valuable. The Coastal Act requires the protection of these resources. Thus, while supporting the need for dredging, the Commission wanted to be sure that material placed at LA-5 was clean material, suitable for aquatic disposal and free of levels of contaminants that could adversely affect marine resources. The Commission determined that there were few commercial or recreational fishing resources in the vicinity of LA-5. Although the Commission was concerned about the smothering of benthic organisms at the disposal site, as long as the material was clean, the Commission accepted this impact and did not consider the loss of benthic organisms to be significant. Finally, the site designation raised concerns over impacts to sand supply. In its consistency determination, EPA made commitments for protecting sand resources and promoting beach replenishment. In addition, through continuing project-by-project review, the Commission retained review authority over individual disposal projects. Through this review the Commission could be assured that adequate testing for contaminants would take place, and that sand suitable for beach replenishment could be retained along the coast. The Commission therefore found the disposal site designation of LA-5 to be consistent with the CCMP.

#### **B. Marine Resources/Fishing/Habitat/Water Quality.**

Section 30230 of the Coastal Act provides 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 provides, in part, 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 ....*

Section 30234 provides 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 provides that:

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

Section 30240(a) of the Coastal Act provides that:

*(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.*

As stated in the previous section of this report, the Commission's main concern over effects on marine resources and commercial and recreational fishing has been over the need to assure that material to be disposed of at LA-5 is uncontaminated and suitable for ocean disposal. The quality of the sediments proposed for dredging and disposal have been evaluated by the applicant pursuant to the procedures described in the 1991 EPA/Corps testing manual, Evaluation of Dredged Material Proposed for Ocean Disposal -- Testing Manual (i.e., the "Green Book"). The testing procedures described in the Green Book allow for a tiered approach to analysis of the dredged sediments. This hierarchical approach allows for optimal use of resources by focusing the least effort on dredging operations where the potential for unacceptable adverse impact is clear, and expending the most effort on operations requiring more extensive investigation to determine the potential for impact. It is necessary to proceed through the tiers only until information sufficient to determine compliance or noncompliance with EPA's regulations has been obtained. Only if there is not enough information to determine suitability or unsuitability for ocean disposal after the completion of a tier, will the applicant be required to complete the next tier testing. (Exhibit 3 contains additional discussion of these three tier testing methodologies).

In order to dispose of its sediments at LA-5, the Port of San Diego evaluated its material according to the current Green Book procedures. As a result of this evaluation the Port states the materials are suitable for ocean disposal. EPA agrees that the sediments are be suitable for ocean disposal, stating:

*As stated in the [Army Corps] public notice, the materials to be excavated for this project are far from any known or suspected sources of contamination. Therefore, an initial screening evaluation of physical and bulk sediment chemistry was conducted. Testing of the sediments was consistent with the procedures outlined in the ... (Green Book). EPA has reviewed the test results and determined, in concurrence with the U.S. Army Corps of*

*Engineers, that no additional testing is necessary and that the 638,000 cu. yds. of material are suitable for disposal at the LA-5 ocean disposal site.*

(A full text of EPA's comments is attached as Exhibit 4.)

In its comments (Exhibit 4) EPA requested that the Port include a buffer area to separate out sediments immediately surrounding a temporary containment storage facility containing dredged sediments that are not to be disposed of at the ocean site, but rather an upland site. While the storage facility was designed to avoid any leakage, as a precautionary measure EPA recommended that sediments immediately adjacent to the facility, and to a depth of one foot, be excluded from the sediments to be disposed of at LA-5. The Port has agreed to comply with this recommendation.

In conclusion, the Commission staff, EPA, and the Corps of Engineers have reviewed the Port's test results, which establish that the dredged sediments proposed for disposal at LA-5 are uncontaminated and suitable for ocean disposal. Therefore, the Commission finds that the ocean disposal of this material will not affect the biological productivity of marine resources, commercial and recreational fishing, or water quality of the coastal zone, and that the project is consistent with Sections 30230, 30231, 30234, 30234.5, and 30240 of the Coastal Act.

### **C. Sand Resources.**

Section 30233(b) of the Coastal Act provides, in part, that

*.... Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.*

Under this policy, dredged sediments that contain significant amounts of sand need to be considered for its suitability for use as beach replenishment. The Port of San Diego has considered this issue, stating:

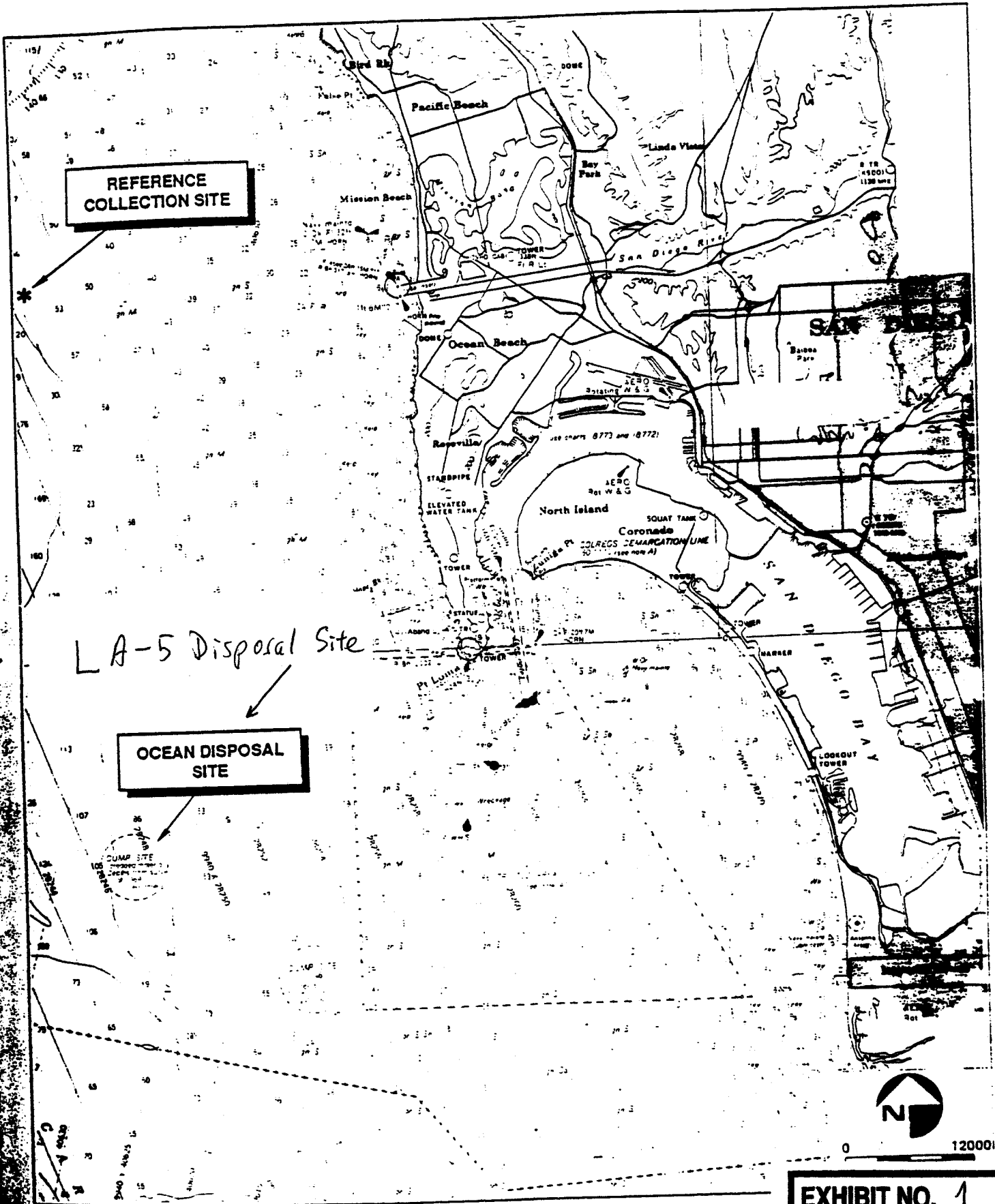
*The San Diego Association of Governments (SANDAG) and the EPA reviewed the analytical results which indicate that the proposed dredge material is predominantly fine grained and is not suitable for use as beach replenishment.*

EPA states (Exhibit 4):

*The materials to be disposed of at the LA-5 ocean disposal site were evaluated for beneficial reuse as beach nourishment. While the site did include layers ranging up to 96% sand, these layers were interspersed with layers of gravel and of fine, silty materials. Given the precision excavation necessary to separate out the potential beach nourishment*

*materials, and the restricted amounts of suitable materials, it was determined that beneficial reuse of these materials was not practicable.*

Overall, the Port's grain size analysis indicates the dredge material contains approximately 65% sand. The Commission does not ordinarily consider material appropriate for beach replenishment until it approaches the 80-90% sand range. Therefore the Commission agrees with the Port that this material is not suitable for beach replenishment. The Commission therefore finds the project consistent with Section 30233(b) of the Coastal Act.

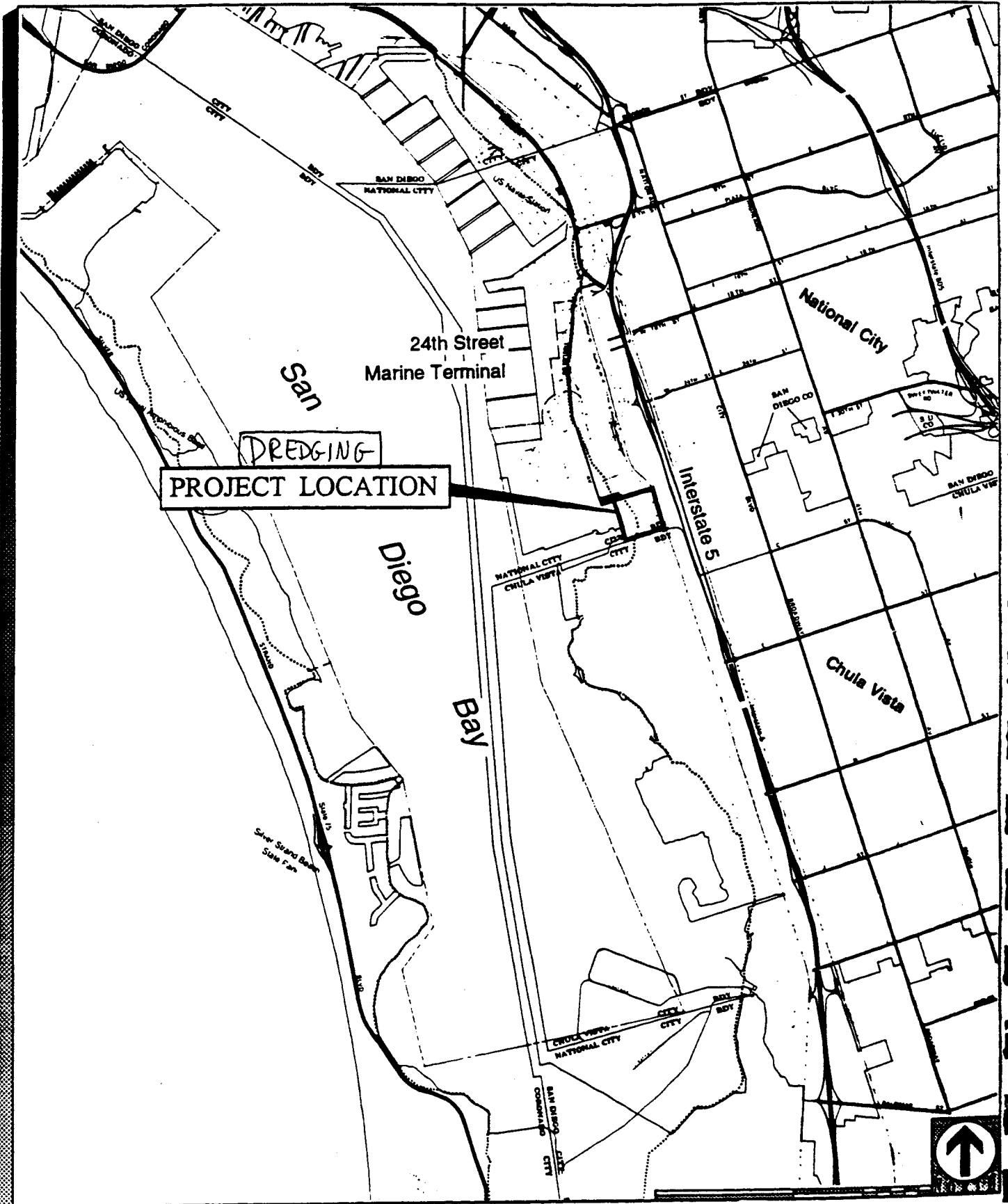


**OGDEN**

Reference Sediment Collection and  
Ocean Disposal Sites

<b>EXHIBIT NO. 1</b>
<b>APPLICATION NO.</b>
CC-50-97





8000



<b>EXHIBIT NO. 2</b>
<b>APPLICATION NO.</b>
CC-50-97



**CALIFORNIA COASTAL COMMISSION**45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200**EXHIBIT 3****Green Book Tier Testing Summary****Excerpted from Consistency Certification CC-61-92 (Southwest Marine)**

The quality of the sediments proposed for dredging and disposal have been evaluated by the applicant pursuant to the procedures described in the 1991 EPA/Corps testing manual, Evaluation of Dredged Material Proposed for Ocean Disposal -- Testing Manual (Green Book). The testing procedures described in the Green Book allow for a tiered approach to analysis of the dredged sediments. This hierarchical approach allows for optimal use of resources by focusing the least effort on dredging operations where the potential for unacceptable adverse impact is clear, and expending the most effort on operations requiring more extensive investigation to determine the potential for impact. It is necessary to proceed through the tiers only until information sufficient to determine compliance or noncompliance with EPA's regulations has been obtained. Only if there is not enough information to determine suitability or unsuitability for ocean disposal after the completion of a tier, will the applicant be required to complete the next tier testing.

The first tier requires the applicant to conduct a comprehensive analysis of all existing and readily available, assembled, and interpreted information on the proposed dredging project. The Tier II test consists of evaluation of marine water-quality criteria compliance using a numerical mixing model of the dump site conditions and an evaluation of the potential benthic impact using calculations of theoretical bioaccumulation potential. When there are no water-quality criteria for all contaminants of concern or when synergistic effects are suspected between contaminants, then Tier III testing is required. This tier requires the applicant to conduct bulk sediment, grain size, liquid/suspended phase (L/SP) bioassays, solid phase bioassays, and bioaccumulation tests. The bulk sediment and grain size tests are used to characterize the sediment, and bioassay and bioaccumulation tests are used to determine the biological effect from any contaminants within the sediments. Most dredging projects are evaluated using Tier III testing. The final tier, Tier IV, is designed to supply all information necessary to make a determination on whether the dredged material is suitable for ocean disposal. Tier IV testing is only expected to be required in rare cases when Tier III does not supply sufficient information for decision-making, and further information on toxicity or bioaccumulation is required. These testing procedures allow EPA and the Corps to evaluate the biological effects from disposal of dredged sediments.

Similarly, the Coastal Act requires the Commission to evaluate the biological effects from dredged material disposal. Pursuant to the Coastal Act policies, the Commission must find that the proposed project will, at a minimum, maintain marine resources, sustain the biological

**EXHIBIT NO. 3**

APPLICATION NO.

CC-50-97

productivity of coastal waters, and protect the quality of coastal waters in order to maintain optimum populations of marine organisms. Since tests described in the Green Book provide information on the biological effects from the proposed disposal, they will allow the Commission to evaluate the project in order to make the necessary findings. For most dredging projects, their biological effects are evaluated using the Tier III testing.

The Tier III LS/P bioassay tests evaluate the effect from contaminants in spoils on organisms in the water column. This test requires that the sediments proposed for dredging are mixed with water at a ratio of 4:1, and then vigorously stirred for 30 minutes. After the mixing period, the mixture is allowed to settle for one hour. This elutriate is divided into three concentrates: 100%, 50%, and 10% concentrates. These different concentrations of elutriates along with a control of clean seawater are used to test the effect of the sediments on several different organisms. The organisms selected for this test must represent phytoplankton or zooplankton, crustacean or mollusk, and fish. A known number of these organisms are placed in the different concentrations of elutriate and the clean seawater for 96 hours. After the completion of the tests, the number of survivors is recorded.

From the mortality rate, testers calculate the concentration of elutriate that causes 50% of the organisms to die (LC50). The LC50 is used to calculate the limiting permissible concentrations (LPC), which is defined as 0.01 of the LC50. The results from the L/SP bioassay are evaluated using a numeric model. The model evaluated water-column toxicity for the maximum concentration of dredged material outside of the boundary of the disposal site during the four-hour initial mixing period and the maximum concentration anywhere in the marine environment after the four-hour initial mixing period. The modeled concentrations are compared to the LPC. If any of the modeled concentrations exceeds the LPC, the material is considered by EPA to not be suitable for ocean disposal.

Compared to the L/SP bioassay, the solid phase bioassay tests are relatively simple. That test is used to evaluate the effect from ocean disposal of dredged material on benthic organisms. Test organisms are exposed to sediments from the dredge site. Organisms are selected to represent filter-feeding, deposit-feeding, and burrowing species. The species are exposed to sediments from the dredge site and a reference site for 10 days. At the completion of the test, the number of survivors are recorded. If the mortality in the sediments from the dredge site is statistically greater than the mortality in the reference sediment or that number exceeds the number in the reference sediment by 10% (20% for amphipod bioassays), the material is not suitable for ocean disposal.

Finally, the Green Book requires bioaccumulation tests in order to analyze the quality of the dredged material. The bioaccumulation tests are used to predict the potential for uptake and accumulation of dredged-material contaminants by organisms. The procedures for bioaccumulation testing suggest that organisms representing burrowing polychaete and deposit-feeding bivalve mollusk be tested. The organisms are exposed to sediments from the dredge site and the reference site for 10 days, if all contaminants of concern are metals, or 28 days, if any of the contaminants of concern is organic or organometallic. After completion of the tests, the

tissues of the organisms are analyzed for contaminants of concern. To evaluate the significance of dredged-material contaminant bioaccumulation, the contaminant concentration of the test-organisms tissue is statistically compared to Food & Drug Administration (FDA) Action Levels for Poisonous and Deleterious Substances in Fish or Shellfish for Human Food. If the concentration of contaminants are less than the FDA action levels or if there are no action levels for any contaminants, then the bioaccumulation results are statistically compared to the concentration of contaminants in the organisms exposed to the reference sediments. If the tissue concentration is greater than the FDA Action Levels or statistically greater than the reference material, the material is not suitable for ocean disposal.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901

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APR 01 1997

PORT OF SAN DIEGO  
ENVIRONMENTAL MANAGEMENT

March 31, 1997

U.S. Army Corps of Engineers, Los Angeles District  
Regulatory Branch - San Diego Field Office  
ATTN: David Zoutendyk (CESPL-CO--95-20011-DZ)  
10845 Rancho Bernardo Rd., Suite 210  
San Diego, CA 92127

re: Public Notice 95-20011-DZ -- San Diego Unified Port District,  
National City, San Diego Bay, San Diego County, California

Dear Mr. Zoutendyk:

This letter provides the U.S. Environmental Protection Agency Region IX (EPA) comments on the San Diego Unified Port District's proposed National City Marina project. The proposal to construct a 267 slip marina would require excavation of approximately 638,000 cubic yards of fill and bay bottom sediments to be disposed of at the EPA designated LA-5 ocean disposal site.

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

As stated in the public notice, the materials to be excavated for this project are far from any known or suspected sources of contamination. Therefore, an initial screening evaluation of physical and bulk sediment chemistry was conducted. Testing of the sediments was consistent with the procedures outlined in the EPA/Corps Testing Manual for the Evaluation of Dredged Materials Proposed for Ocean Disposal (Green Book). EPA has reviewed the test results and determined, in concurrence with the U.S. Army Corps of Engineers, that no additional testing is necessary and that the 638,000 cubic yards of material are suitable for disposal at the LA-5 ocean disposal site.

Prior to excavation of the materials for disposal at LA-5 the on-site containment facility constructed for the temporary storage of dredged materials will be removed. This facility and the dredge materials it contains will be disposed of at an upland site and are not included in the materials approved for ocean disposal. There is no evidence of any leaking of contamination from the sediments temporarily stored in this facility; the facility was designed to

EXHIBIT NO. 4
APPLICATION NO. CC-50-97

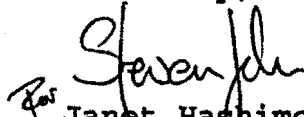
preclude such leakage. To ensure that none of the containment facility or the stored sediments are mixed with materials approved for ocean disposal, EPA recommends that the Corps permit include a special condition requiring removal and upland disposal of a minimum one foot buffer layer of material between the facility and the materials to be disposed at LA-5.

The materials to be disposed of at the LA-5 ocean disposal site were evaluated for beneficial reuse as beach nourishment. While the site did include layers ranging up to 96% sand, these layers were interspersed with layers of gravel and of fine, silty materials. Given the precision excavation necessary to separate out the potential beach nourishment materials, and the restricted amounts of suitable materials, it was determined that beneficial reuse of these materials was not practicable.

Based on our review of the evaluations conducted for this proposed project, EPA would not object to issuance of a Department of the Army permit for the National City Marina project which includes the special permit condition listed above.

Thank you for the opportunity to review this proposed action. If you have any questions about EPA's comments, please contact Steven John of our Dredging and Sediment Management Team, Los Angeles field office, 213/452-3806.

Sincerely,



Janet Hashimoto, Chief  
Monitoring and Assessment  
Office

cc: Port of San Diego  
USFWS  
NMFS  
CCC  
CDFG  
RWQCB

EXH. 4., p2