

**CALIFORNIA COASTAL COMMISSION**

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**REVISED STAFF REPORT AND RECOMMENDATION****ON CONSISTENCY DETERMINATION**

Consistency Determination No.	<b>CD-090-02</b>
Staff:	MPD-SF
File Date:	2/6/2003
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Extended to:	5/9/2003
Commission Meeting:	5/6/2003

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

Main Channel, between the Coronado Bridge and the Naval Turning Basin at Naval Air Station North Island, San Diego Bay, and offshore of Imperial Beach (Exhibits 1-4)

**PROJECT  
DESCRIPTION:**

550,000 cu. yds. (420,000 cu. m.) of dredging to deepen the main channel to -42 ft. MLLW (mean lower low water), with disposal in nearshore waters offshore of Imperial Beach; the project also includes relocation of a 69 kV electrical cable (Exhibits 2,3,7,8,15)

**SUBSTANTIVE FILE  
DOCUMENTS:**

See page 15.

**EXECUTIVE SUMMARY**

The U.S. Army Corps of Engineers ("Corps") is proposing 550,000 cu. yds. (420,000 cu. m.) of dredging to deepen the San Diego Bay Main Channel to -42 ft. below mean lower low water (MLLW)(from existing depths of -40 ft.), between the Coronado Bridge and the Naval Turning Basin at Naval Air Station North Island, with disposal of the material south of the Imperial Beach Pier in nearshore waters off Imperial Beach. The project also includes relocation of a 69 kV electrical line that runs under the Bay from San Diego to Coronado.

The Corps states the deepening is needed due to shipping inefficiencies based on existing channel depths, which constrain shipping of deep draft vessels and necessitates their partial unloading at other ports (Los Angeles and Long Beach) before transiting to San Diego Bay destinations. Inefficiencies have also resulted in underutilization of the Tenth Avenue Marine Terminal in the Port of San Diego.

The primary issues raised by the proposal involve biological sediment testing and the suitability of the material for nearshore disposal (i.e., beach replenishment). The latter issue involves both grain size and the potential for munitions in the material (a concern raised during Navy dredging in the entrance channel in 1997). The material is predominantly (over 80%) sand, which makes it suitable for beach or nearshore disposal. While the Corps initially proposed disposal at the EPA-approved offshore dredge disposal site LA-5, in response to concerns raised by the Commission staff and the San Diego Association of Governments' (SANDAG's) Shoreline Erosion Committee, the Corps modified the project to provide for nearshore disposal in waters above -30 ft. in elevation, offshore of Imperial Beach. Given the high sand content in the proposed dredge material, the fact that the sediment tests have established that the material is suitable for ocean disposal, and absent any evidence of munitions in the material, nearshore disposal is appropriate and consistent with the requirement of Section 30233(b) of the Coastal Act that material suitable for beach nourishment be disposed within littoral beach systems. Also, the project has passed the necessary "Green Book" sediment tests and is suitable for ocean disposal. Dredging has been scheduled to avoid the least tern nesting season. Commitments are in place for contingency planning to minimize drill fluid spills and eelgrass impacts, and to avoid eelgrass impacts by leaving the portions of the cable in place in shallower waters. As modified, the project is consistent with the marine resources and water quality policies (Sections 30230 and 30231) and the allowable use, alternatives, and mitigation tests of the dredging policy (Section 30233(a)) of the Coastal Act.

Nearshore disposal maximizes access and recreation opportunities in a region of the coast with serious shoreline erosion problems. Placing the material at the beginning of the littoral cell in Imperial Beach means that the disposal will help build beaches throughout the Silver Strand littoral cell. Recreation impacts associated with the temporary use of South Embarcadero Marina Park for the electric cable relocation construction activities have been addressed by a commitment for replacement parking nearby during the three-month cable relocation construction period. The project is consistent with the public access and recreation policies (Sections 30210-30212) of the Coastal Act.

## **I. STAFF SUMMARY AND RECOMMENDATION:**

**A. Project Description.** The Corps has submitted a consistency determination for dredging 550,000 cu. yds. (420,000 cu. m.) of sediment to deepen the San Diego Bay main channel to -42 ft. (plus 1.6 to 2 ft. overdredge) below mean lower low water (MLLW), with disposal in Imperial Beach nearshore waters (above -30 ft. Mean Lower Low Water (MLLW) (Exhibits 1, 2 & 14). The project also includes relocation of a 3,300 ft. long 69 kilovolt (kV)

electrical cable. The Corps created the main channel in 1974, when it dredged the navigation channels in the center of the Bay. In 1998, the Navy deepened the entrance channel (up to the area the Corps now proposes to deepen) to accommodate the homeporting of deep draft nuclear aircraft carriers (CD-90-95).

The main channel in this portion of the bay is currently at a -40 ft. depth, varying in width from 600 to 1,900 ft. The Navy recently dredged the entrance channel to the west to -47 ft. (CD-95-95), and the Naval Turning Basin (between the entrance channel and the Naval Air Station North Island (NASNI)) to -50 ft. (CD-89-99) (Exhibit 3). The South Bay channel to the east (from the Coronado Bridge to Sweetwater Channel) is at a -35 ft. depth.

The deepening would occur between a point approximately 250 ft. (75 m.) northwest of the Coronado Bridge and the area the Navy previously deepened at the Naval Turning Basin. The Corps originally planned to dispose the material at LA-5, the EPA-approved dredge disposal site located 5.4 miles southwest of Point Loma (Exhibit 1). However the Corps has modified the project and now proposes nearshore disposal offshore of Imperial Beach (Exhibits 1, 2 & 14). Dredging is scheduled to occur between September 15 and March 31, to avoid impacts to least terns. If dredging does continue into least tern season, the Corps will implement operational modifications to reduce turbidity.

Several utility lines cross under the Bay where they intersect the narrowest part of the Main Channel. The proposed dredging would necessitate the relocation of one of these lines, a San Diego Gas and Electric (SDG&E) 69 kV electrical cable, between its landfalls at Seaport Village in San Diego to the north and the Ferry Landing Marketplace in Coronado. The new cable would be located 300-350 ft. (90-150 m.) east of the current alignment (Exhibit 5) and would be installed by horizontal or water jet-assisted drilling. The existing cable would be removed or abandoned, depending on location. The portion of the cable within the dredge footprint (and within 100 ft. on either side) would be removed or disposed of at an existing landfill or recycled. Any vegetated landscaped areas at the construction sites that are temporarily disturbed will be revegetated.

Dredging would occur using either a clamshell or hopper dredge, with the possible use of a handheld dredge in areas where tight controls are needed, such as around utility cables.

The new cable would be installed from San Diego, with drilling to occur from the Embarcadero Park parking lot (Exhibits 5-8 & 15) (located just south of Seaport Village), which would be occupied for 3 months. The cable construction is tentatively scheduled to commence in September 2003, with the dredging to commence in December 2003. The overall project would last approximately 7 months and end in April 2004, based on the current schedule. The Corps anticipates future maintenance dredging of the main channel would be needed approximately once every 25 years. Construction staging would occur at the Tenth Avenue Marine Terminal.

**B. History of Munitions Found in San Diego Bay Sediments.** On November 16, 1995, the Commission concurred with a U.S. Navy consistency determination for the homeporting of a NIMITZ-Class nuclear aircraft carrier and associated improvements, including dredging for entrance channel deepening to -47 ft. MLLW (CD-95-95). The project originally included beach/nearshore disposal of up to 7.9 million cu. yds. of clean sandy material at four beaches throughout the County (Imperial Beach, Del Mar, Oceanside, and Mission Beach).

The Navy commenced disposal operations in September 1997, beginning with South Oceanside beach disposal and Mission Beach nearshore disposal. After disposing approximately 50,000 cu. yds. of sand at South Oceanside, the Navy discovered hazardous munitions (including live ordnance) in the dredge material. No ordnance was found in investigations of nearshore disposal at Mission Beach, where about 7,000 cu. yds. were disposed.

Concerned about public health, but wishing to proceed expeditiously with the project, the Navy immediately ceased its beach and nearshore disposal operations, and on October 1, 1997, sought Commission authorization for disposal at LA-5 of the "Area 1" material (Exhibit 11). The Commission staff asked the Navy to request only the minimum necessary disposal at LA-5, since at that time the Navy was still considering whether any of the Area 1 material could be safely used for beach replenishment. The Navy later abandoned that effort, and the Commission objected to the Navy's revised consistency determination (CD-140-97). The Navy subsequently found additional munitions at Oceanside from "Area 4" sediments and proposed disposal of all material at LA-5. On November 19, 1997, the Navy informed the Commission that it was proceeding with the modified project for disposal at LA-5, despite the Commission's objection.

After the Commission filed a lawsuit, on January 28, 1998, the U.S. District Court issued a preliminary injunction enjoining the Navy from conducting further dredging (5 Fed.Supp.2d 1106 (S.D.CA 1998)). The injunction was "... conditioned upon the Commission's expeditious study of proposed alternatives to offshore dumping, including those set forth in the Harris Report, and the good faith of the parties to negotiate a resolution which is the stated goal of both sides."

On January 30, 1998, the Navy submitted Consistency Determination CD-9-98 for the disposal of all the remaining material at LA-5. Also on January 30, 1998, the Commission's Executive Director wrote the Navy outlining a potential solution involving: (1) obtaining an authorization to use any excess existing project funds not spent by the Navy for beach replenishment; (2) increasing the federal match ratio to allow the Navy to spend up to \$9.6 million in federal funds (to match \$4.7 million in State funds); (3) obtaining additional funding

(up to approximately \$10 million) to make up for lost sand, "so that the end result is the placement of approximately the same amount of on-shore and near-shore sand as had been originally included in the Navy's project."

On February 10, 1998, the Navy agreed to pursue legislative changes to allow the use of any remaining channel dredging project funds for beach nourishment, providing for alternative sources of sand including borrow site sand instead of channel sand for beach nourishment, as well as to support efforts to seek additional funds for beach nourishment "... up to or equal to the amount needed to provide the total amount of sand identified for beach replenishment in the project as approved [i.e., originally concurred with] by the Commission ...." Based on this agreement the Commission and the Navy jointly stipulated to a lifting of the District Court's preliminary injunction. The Navy subsequently modified its consistency determination, and on March 10, 1998, the Commission concurred with the Navy's modified consistency determination, which authorized LA-5 disposal but included these commitments for beach replenishment (CD-9-98).

On April 20, 1999, SANDAG, which became the lead agency implementing the beach replenishment project using the Navy's funds and matching State funds, published a Notice of Preparation of an EIR for the San Diego Regional Beach Replenishment Project. This project consisted of dredging two million cu. yds. of sand from offshore borrow sites and placing the sand on 12 beaches in San Diego County (Exhibit 12). The Commission granted SANDAG Coastal Development Permit No. CDP-6-00-038 in November 2000 (with subsequent amendments 6-00-038-A1 and A-2). SANDAG commenced the replenishment activity in April 2001 and completed it on September 23, 2001.

Finally, in response to concerns over the extent of munitions possibly remaining in San Diego Bay, the Navy conducted a survey entitled: "Final Preliminary Assessment of Munitions in San Diego Bay Primary Ship channels and U.S.S. *Stennis* Beach Replenishment Areas," (October 2001). The study (Exhibits 16-17) concluded: "No evidence was found that indicates dumping or implies that large quantities of munitions are present in the sediment."

**C. 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 Commission certified the LCP or PMP and incorporated it into the CCMP, the LCP or PMP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP or PMP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The City of San Diego's and Coronado's LCPs and the Port of San Diego's PMP have been certified by the Commission and incorporated into the CCMP.

**D. Federal Agency's Consistency Determination.** The Corps of Engineers has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

**E. Staff Recommendation:** The staff recommends that the Commission adopt the following motion:

**MOTION:** I move that the Commission **concur** with consistency determination CD-090-02 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

**STAFF RECOMMENDATION:**

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

**RESOLUTION TO CONCUR WITH CONSISTENCY DETERMINATION:**

The Commission hereby **concurs** with the consistency determination by the Corps for the proposed project, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

**II. Findings and Declarations:**

The Commission finds and declares as follows:

**A. Dredging, Sand Supply, and Marine Resources.**

**1. Coastal Act Policies.** The Coastal Act provides:

*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 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. 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....*

*Section 30233. (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

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

*(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.*

**2. Overview.** In order to concur with the Corps' consistency determination, the Commission must find the project would not adversely affect marine resources, water quality, and other environmentally sensitive habitat, and, because the project involves dredging within a coastal estuary, that the project complies with the three-part test of Section 30233(a) of the Coastal Act (i.e., the allowable use, alternatives, and mitigation tests). Under Section 30233(b), the Commission must also find that the project provides for beach replenishment where dredged material is suitable.

The project is an allowable use for dredging under Section 30233(a) as a new or expanded port and/or coastal-dependent boating facility. The analysis of consistency with the alternatives and mitigation tests of Section 30233(a) hinges on whether the Corps' biological test results establish the material's suitability for ocean disposal, and, if clean and predominantly sand, the material's suitability for beach or nearshore disposal. When the previous Commission staff report on this project was published (for the March 2003 Commission meeting), the test results had not been completed, as the Corps had not completed the necessary final bioassay and bioaccumulation tests. As will be discussed below, these tests are now complete and have been reviewed by EPA and the Commission staff.

Potential impacts of dredging on marine water quality include temporarily increased turbidity, reductions in dissolved oxygen, and potential resuspension, remobilization, and redistribution of any chemical contaminants present in the sediments. Dredging would result in losses of infaunal and epifaunal biota, and some burrowing and bottom dwelling fish within the dredge footprint. These impacts are typical of all dredge projects, and the Commission has historically determined no mitigation necessary for the temporary impacts from dredging harbors and disposal of clean, predominantly sandy sediments on beaches or in surf zone or nearshore marine environments.

**3. Biological Effects/Dredging and Disposal.** To determine the appropriate alternative and analyze the material's suitability for ocean disposal, the Corps evaluated sediments proposed for dredging and disposal 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. 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.

To assure the material's suitability for ocean disposal, the Corps analyzed the physical and chemical characteristics of the dredged sediments. Because state and federal sediment quality criteria are not available for interpreting sediment chemical analysis, the National Oceanic and Atmospheric Administration (NOAA) sediment criteria (developed by Long and Morgan in 1990) are often used to interpret sediment data. If the levels of contaminants are higher than the ER-L, then it is **possible** that there will be a biological effect from the contaminant. If the level is above the ER-M, then adverse effects are **likely**. Levels between the ER-L and ER-M are considered to have possible effects, especially on sensitive species.

The Corps' submittal included test results from 1998 (Ogden 1998) which concluded that the material passed the Green Book standards and was suitable for ocean disposal. However EPA requested that the Corps undertake confirmatory test at the proper depths, as the 1998 results were for different dredge depths than now proposed by the Corps, and therefore may not be fully representative of the dredge material. The Corps' subsequent sediment chemistry tests showed slightly elevated contaminants in several core samples; the sample results of concern consisted of: (1) exceedences of ER-L levels in mercury in Cores # 6, 11 and 12; (2) an exceedence of ER-L levels in 2 PAHs (Acenaphthylene and Fluorine) in Core #4; and (3) overall high PAH levels (although none specifically exceeding an ER-L number) in Cores 11-15. Based on these levels, EPA requested additional bioassay and bioaccumulation tests. The bioassay and bioaccumulation tests have now been completed.<sup>1</sup> The test report concludes:

## **6.0 CONCLUSION**

*In conclusion, the Port of San Diego is proposing to conduct a dredging project in the San Diego Bay Navigation Channel that will yield approximately 550,000 cy of dredged sediment. The sediment was tested to determine if it is acceptable for disposal nearshore at Imperial Beach or at the LA-5 ocean disposal site. The tests indicated that the sediment is of adequate*

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<sup>1</sup> Draft Report, Central San Diego Bay, Navigation Channel Deepening Project, Port of San Diego, AMEC Earth & Environmental, Inc., March 2003.



*grain size for beach nourishment, and met the water column, benthic, and bioaccumulation LPCs as required by the Clean Water Act and the Ocean Dumping Law. The sediment, therefore, is suitable for disposal at either location.*

Based on these test results and conclusions, the Corps states:

*In addition, the proposed dredge material was analyzed for its chemical suitability for disposal and a subset of the samples underwent bioassay and bioaccumulation testing. According to "Green Book" guidelines and standards, the material is found to be suitable for disposal at either LA-5 or Imperial Beach nearshore waters, as it meets the water column, benthic, and bioaccumulation LPCs as required by the Clean Water Act and the Ocean Dumping Law. The Corps has coordinated results of chemical analysis with Mr. Steven John of the EPA. As per his review of the completed bioassay and bioaccumulation data for the Central San Diego Bay Navigation Channel Deepening Project, Port of San Diego, the EPA concurs formally on the Corps determination that the proposed dredge materials are suitable for aquatic or ocean disposal.*

Addressing marine resources at the revised disposal site, the Corps states:

*The implementation of the new proposed disposal action would involve potential impacts to a different area than discussed in the Draft EIS/EIR. The Corps is coordinating with resource agencies, including the National Marine Fisheries Service, to ensure any potential impacts are avoided or minimized. The kelp beds occurring in the Imperial Beach nearshore areas are of concern, however, disposal actions could avoid the kelp beds by providing a buffer zone. The Corps is also coordinating with concerned local fishermen to minimize impacts to fishing in the Imperial Beach area.*

The Commission finds that the Corps has addressed the biological issues raised and that the material has passed the tests needed to assure that dredging and nearshore disposal would not adversely affect marine resources. The Commission therefore finds the project consistent with the marine resources and water quality policies (Sections 30230 and 30231) and with the alternatives and mitigation tests of the dredging policy (Section 30233(a)) of the Coastal Act.

**4. Sand Supply/Beach Replenishment.** Beach erosion is a major problem along many of the beaches in San Diego County. To be considered suitable for beach nourishment, sediment must be free of chemical contamination (i.e., pass Green Book tests described above) and consist primarily of sand of an acceptable grain size (usually approximately 80% sand, although another commonly used "rule-of thumb" is that the material should ideally fall within 10% of the percentage of sand content at the receiver beach). If placed on the dry upland portion of the beach, the grain size should ideally be compatible with the predominant grain size on the receiver beach as well. The "Ogden 1998" test results indicated that the dredge

material is 77-98% sand. The Corps' more recent and more accurate confirmatory testing (AMEC, 2003) showed an average of cores 1-10 of 83.04 % sand, and 77.2% sand in cores 11-15. The Corps then conducted an additional beach compatibility analysis based on the AMEC results; these results provide a more precise representation of 81.8% sand (Exhibit 9).

The Commission would normally expect an applicant to implement beach or nearshore disposal where the sand content is above 80%. In this case, while the Corps initially proposed LA-5 disposal, after concerns over this proposal were expressed by the Commission staff and at SANDAG (Shoreline Preservation Committee) meetings, the Corps reconsidered its position and modified the project to include nearshore disposal off Imperial Beach (Exhibit 14).

In analyzing the compatibility of the material with the receiver beach (nearshore Imperial Beach) sediments, the Corps states:

*A recent sediment sampling of the proposed dredge material was conducted to determine its suitability for disposal at the EPA-approved ocean disposal site LA-5 and Imperial Beach.... For the purposes of the study, Imperial Beach as a potential disposal site is broken down into two zones: nearshore and onshore areas. The nearshore area is that area that falls between -6 to -8 meters of elevation. The onshore area is that part of the beach which falls between -4 and +4 meters of elevation. From a geotechnical standpoint, the main criterion involved in determining a borrow sites' compatibility with a potential receiver site is the fines content of the sample. That is to say the amount, expressed as a percentage of weight of a given sample, of material that will pass unimpeded through a #200 sieve. The fines in a potential borrow site may not exceed the fines percentage in a potential receiver site by more than ten percentage (10%) points. The proposed dredge material sampled in December 2002 had an average fines content of 18% while the Imperial Beach nearshore area had an average fines content of approximately 11-12%. The proposed dredge material is within the 10% criterion and is therefore considered to be geotechnically compatible with the nearshore zone of Imperial Beach....*

Addressing concerns over the potential for munitions in the sediments, the Commission notes that the area proposed for dredging is at least 3 miles from the nearest area where the Navy found munitions during the first homeport dredging project (i.e., in Area 4, Exhibit 11). In addition, for the Navy's most recent large dredging/homeporting project (CD-89-99), which included 534,000 cubic yards of dredging from Berth J deepening, and which was located much nearer (just west of) the Corps' proposed main channel dredging (i.e., the Navy area is identified as "Naval Turning Basin" on Exhibit 3), the Navy placed the material in nearshore bay waters creating intertidal/subtidal habitat, southeast of the Naval Amphibious Base in Coronado. The Navy conducted pre- and post-disposal surveys to determine whether any munitions could be detected in sediments that were being dredged and disposed in the Bay. The pre-construction magnetometer and diver surveys, completed in May 1998 in the vicinity of Pier J/K, did not detect munitions. Sediments were also tested for explosive compounds and

none were detected. Post-construction surveys for munitions (required by the Regional Water Quality Control Board) have also not shown evidence of any active munitions from this dredge material.<sup>2</sup> In fact, the Corps' initial technical analysis for its dredging (Draft EIS Appendix B, p. B-11) noted:

*Ordnance was not encountered during the 1998 explorations and is not expected to be encountered during dredging for this project, since it was not observed or encountered in any of the materials removed during the Corps 1975-dredging project... " [emphasis added].*

In addition, in response to concerns raised at the time of the Navy's 1997 San Diego Bay dredging and discovery of munitions disposed at Oceanside (Navy consistency determinations CD-95-95, CD-140-97 and CD-160-97), which raised issues about the overall extent of munitions possibly remaining in San Diego Bay, the Navy conducted a survey for munitions throughout San Diego Bay.<sup>3</sup> This Navy study extensively surveyed historic information including military accidents, incidents, and weapons storage and transfer operations, including interviews of and Naval and ex-Naval personnel, in an attempt to characterize the extent of the problem in San Diego Bay and to identify areas of potential concern. The study concluded:

#### ***San Diego Bay Primary Ship Channels***

*After an exhaustive search for the possible source of munitions in sediment from the San Diego Bay primary ship channels, an exact source of the munitions found during beach replenishment could not be pinpointed. The Navy and other military services have a long history of activity in the San Diego Bay primary ship channels that includes training with and transport of munitions and eras of wartime preparation when munitions handling was more common and more frequent. No evidence was found that indicates dumping or implies that large quantities of munitions are present in the sediment. Evidence was found indicating that small quantities of mostly smaller ordnance may be present in sediment in the San Diego Bay primary ship channels (see the AOPCs [Areas of Potential Concern] in Section 6.*

Section 6 (Areas of Potential Concern) and 9 (Conclusions and Recommendations) of that report are attached as Exhibits 16-17.

For the revised project, the Corps' conclusion concerning the potential for munitions to be present at the disposal site and any hazard that might exist is as follows:

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<sup>2</sup> See Final Summary Report, Site Surveys During the Period of 9 July 2001 to 23 September 2002, Munitions Debris Site Survey at the Naval Amphibious Base Habitat Enhancement Site Coronado, California, U.S. Navy, 15 January 2003.

<sup>3</sup> Final Preliminary Assessment of Munitions in San Diego Bay Primary Ship channels and U.S.S. *Stennis* Beach Replenishment Areas, October 2001.

*The issue of possible munitions in the proposed dredge footprint has been a public safety concern. However, a 1976 Corps project dredging the same area found no evidence of munitions in the material. Since the proposed dredge footprint lies within the 1976 dredging footprint, the Corps does not anticipate munitions being found in the material and therefore does not propose to screen the material for possible munitions. As a precautionary measure, the Corps has coordinated with the San Diego County Sheriff Communications Station. The bomb squad there has jurisdiction overseeing the shoreline from Coronado to Imperial Beach and they would remove any possible munitions that may end up on the shoreline. The squad has provided training for all lifeguards to identify munitions that may be found on the beaches. Upon finding any munitions, lifeguards would immediately notify the squad, whose responsibility would be to remove the munitions appropriately.*

In conclusion, the Commission finds that the available evidence does not support claims that the material is unsuitable for beach nourishment based on concerns over the potential for munitions in the sediments. As the Corps is now proposing beach nourishment in the form of nearshore disposal offshore of Imperial Beach, the Commission finds the project, as modified, consistent with the sand supply policy (Section 30233(b)) of the Coastal Act.

**5. Cable Relocation.** An additional issue raised by the project is the potential for impacts from the proposed 69 kV electric cable relocation. Drilling for the cable installation could result in drilling fluid releases on land where they could escape from the surface boring, or in the bay due to pressurization and release through sub-seafloor cracks in underlying bay sediments of the fluids. The Corps estimates the potential for bay releases to be small. Material and equipment will be on-site, if needed, to enable berms to be placed around the upland drill sites to capture any fluids released. The Draft EIS mentions the potential for adverse effects from such releases on eelgrass beds in the Bay; again, the Corps estimates any effects to be minimal, "... as the mud would likely spread along the bottom and below the leaves of the eelgrass." The Corps also notes any cleanup operations, if needed, would need to be carefully planned, as they could have more adverse effects than the releases themselves. The Corps has included the following minimization/mitigation measures to address potential fluids releases and eelgrass impacts:

- Pre-construction eelgrass surveys within 200 ft. of either side of the cable alignment, with post-construction surveys triggered in the event drill fluids are released;
- Controlled drill advance rate to minimize sudden pressure changes;
- Drill pressure and mud loss monitoring;
- Visual inspections in shallow waters;

- If fluids are released, the RWQCB (and the Corps, Regulatory Branch) will be contacted;
- Surface returns in shallow waters and in the eelgrass beds would be evaluated to determine if additional measures are warranted.
  - a) Minor surface returns would be monitored; if effects minor, no cleanup activities triggered;
  - b) Other surface returns would be monitored. Use of water jets may be considered to help disperse muds from eelgrass beds if necessary. Such water jets would be gentle enough to avoid direct disturbance of plants or their substrate. Other cleanup actions may also be desirable, and such actions would be determined quickly in consultation with appropriate regulatory agencies.
- A response plan would be prepared by the contractor and in place to deal with a potential surface return on dry land and in areas where muds could enter the bay from overland. In this situation, the surface return would be contained before it reaches the bay.

The Corps also states that, to minimize eelgrass impacts, the cable would not be fully removed:

*It is not necessary to remove the entire cable. The nearshore portions of existing 69 kV cable would be abandoned in place to avoid direct impacts to eelgrass on the Coronado side of the alignment.*

According to the Corps' Draft EIS, San Diego Gas and Electric (SDG&E) will be preparing a Storm Water Pollution Prevention Plan (SWPP) to comply with the Clean Water Act. The Corps also states that Best Management Practices for erosion and sediment controls would be implemented for any trenching activities. The Corps has indicated that it can assure any necessary controls will be implemented by SDG&E to comply with the BMPs. The Commission staff has requested additional project details concerning: (1) drilling fluid spill contingency planning and monitoring; (2) identifying the drill location; and (3) details about where the cable would remain in place and, where it would not, the disposal method and location. The Corps' has responded to these request, including a commitment for Commission staff review and concurrence, prior to commencement of construction, of a drill fluid spill contingency planning and monitoring (and in fact the Commission staff has received such a monitoring plan from SDG&E, dated April 7, 2003.<sup>4</sup> The Corps has also: (1) agreed to add the Commission to the agencies to be contacted in the event of a spill; and (2) provided an additional environmental analysis of the drilling activity (prepared by SDG&E).<sup>5</sup> The

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<sup>4</sup> Drilling Fluid Release Monitoring Plan for Horizontal Directional Drilling, 69 kv TL655 Relocation – San Diego Bay Bore Project, San Diego Gas and Electric, April 7, 2003.

<sup>5</sup> Evaluation of the Environmental Effects of the Proposed Horizontal Direction Drill Project to Relocate the existing

Commission believes the Corps has adequately addressed any concerns raised and finds that with the commitments made, the cable relocation activity would not adversely affect marine resources.

**6. Conclusion.** The Corps has now completed the applicable biological test results, which indicate the material is suitable for ocean or beach disposal. The material is over 80% sand, and there is no evidence supporting a concern that live munitions would be in the material. As modified to include nearshore disposal, the project is consistent with the requirement of Section 30233(b) that material suitable for beach nourishment be disposed within the littoral beach system (i.e., in nearshore waters offshore of Imperial Beach). Dredging has been scheduled to avoid the least tern nesting season. Commitments are in place for contingency planning to minimize drill fluid spills and eelgrass impacts, and to avoid eelgrass impacts by leaving the portions of the cable in place in shallower waters. The Commission concludes that the project consistent with the marine resources and water quality policies (Sections 30230 and 30231), the allowable use, alternatives and mitigation tests of the dredging policy (Section 30233(a)), and the sand supply policy (Section 30233(b)) of the Coastal Act.

**B. Public Access and Recreation.** Sections 30210-30212 of the Coastal Act provide for the maximization of public access and recreation opportunities. The proposed nearshore disposal will benefit public recreation by providing for beach replenishment. Access and recreation impacts on boating in the bay from dredging activities would be temporary. Construction activities associated with relocation of the 69 kV utility cable would result in temporary (3 months) effects on public use of South Embarcadero Marina Park, near Seaport Village/Kettner Blvd. in San Diego, and to a lesser degree, across the bay at the Ferry Landing Marketplace in Coronado.

In response to its questions, the Commission staff has received a discussion from the Port of San Diego (Exhibit 18), which addresses issues raised from the proposed closure of the South Embarcadero Marina Park parking lot for 3 months during the cable relocation construction period. The discussion clarifies that while the entire lot will be inaccessible for public parking, the park will remain open for pedestrian public access, and, further, that replacement parking will be available nearby. The discussion (Exhibit 18) states: "Replacement public parking shall be made available at Seaport Village, Harbor Seafood Mart, and/or the Old Police Headquarters site" (Exhibit 19).

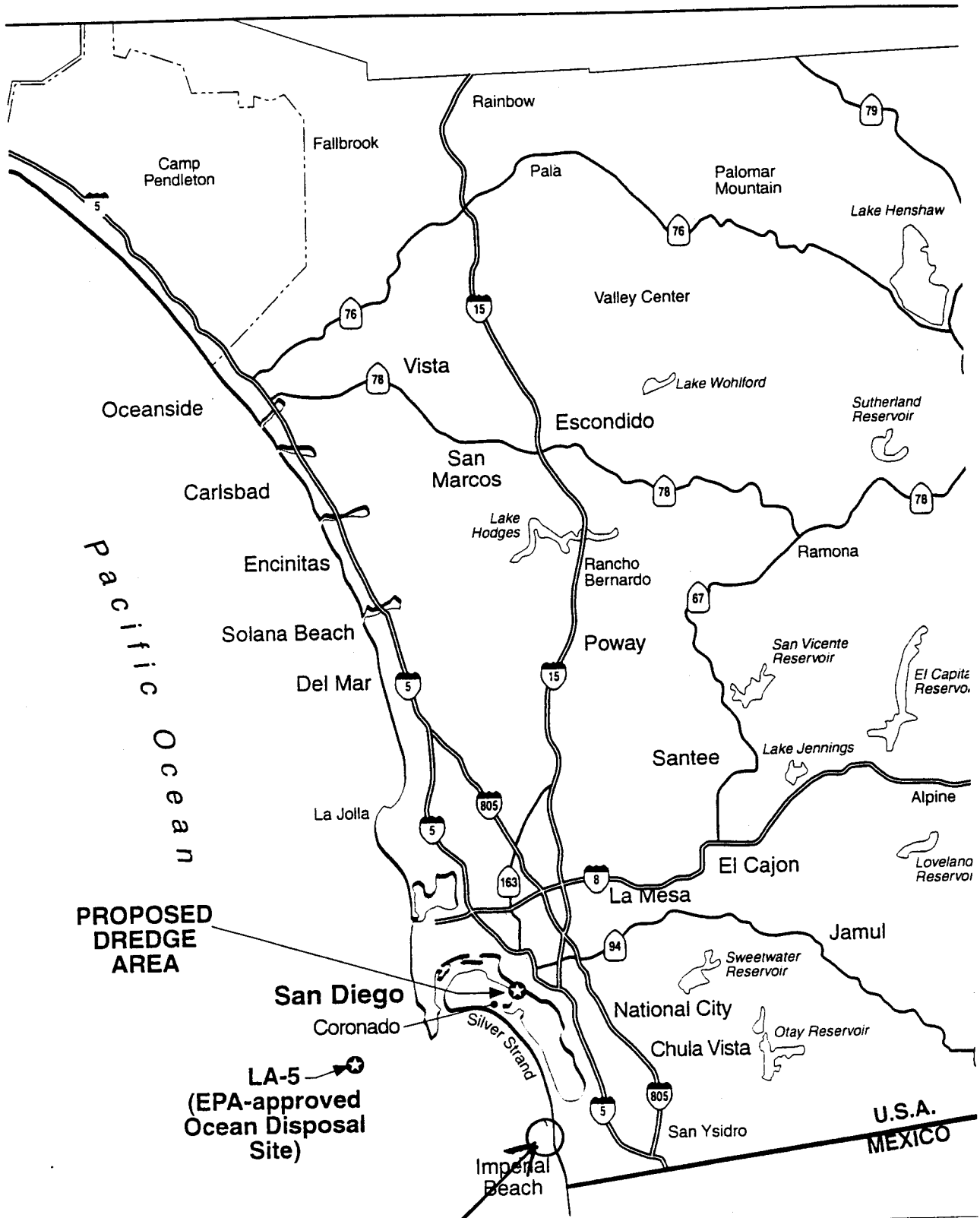
Nearshore disposal maximizes access and recreation opportunities in a region of the coast with serious shoreline erosion problems. Placing the material at the beginning of the littoral cell in Imperial Beach means that the disposal will help build beaches throughout the Silver Strand littoral cell. Recreation impacts associated with the temporary use of the South Embarcadero Marina Park for the electric cable relocation have been addressed by a commitment for replacement parking nearby during the three-month cable relocation construction period. For these reasons, the Commission concludes that the project is consistent with the public access and recreation policies (Sections 30210-30212) of the Coastal Act.

### **III. SUBSTANTIVE FILE DOCUMENTS:**

1. Draft EIS/EIR for San Diego Harbor Deepening (Central Navigation Channel), U.S. Army Corps of Engineers, November 2002.
2. U.S. Navy Consistency Determinations No. CD-95-95, CD-140-97, CD-161-97, CD-9-98, and CD-89-99, and Negative Determination ND-63-00 (Homeporting of Nuclear Air Craft Carriers, Naval Air Station North Island).
3. Consistency Determination No. CD-46-02 (Corps of Engineers, 2.2 million cu. yds. beach nourishment project, Imperial Beach).
4. Coastal Development Permit and Amendments CDP-6-00-038 (and subsequent amendments 6-00-038-A1 and A-2, San Diego Association of Governments (SANDAG), Regional Beach Replenishment Project.
5. Final Report Central San Diego Bay Navigational Channel Deepening Project, Ogden, November 1998, for Port of San Diego.
6. Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991 EPA/Corps ("Green Book").
7. Final Summary Report, Site Surveys During the Period of 9 July 2001 to 23 September 2002, Munitions Debris Site Survey at the Naval Amphibious Base Habitat Enhancement Site Coronado, California, U.S. Navy, 15 January 2003.
8. Final Preliminary Assessment of Munitions in San Diego Bay Primary Ship channels and U.S.S. *Stennis* Beach Replenishment Areas, U.S. Navy, October 2001.
9. Drilling Fluid Release Monitoring Plan for Horizontal Directional Drilling, 69 kv TL655 Relocation – San Diego Bay Bore Project, San Diego Gas and Electric, April 7, 2003.

10. Evaluation of the Environmental Effects of the Proposed Horizontal Direction Drill Project to Relocate the existing 69kV Electric Transmission Line Across San Diego Bay, San Diego Gas and Electric, July 23, 2002.
11. Draft Report, Central San Diego Bay, Navigation Channel Deepening Project, Port of San Diego, AMEC Earth & Environmental, Inc., March 2003.
12. Parking and Public Access Issues – SDG&E Utility Upgrade Project, Port of San Diego.





**PROPOSED DREDGE AREA**

**LA-5  
(EPA-approved  
Ocean Disposal  
Site)**

**REVISED  
DISPOSAL AREA**

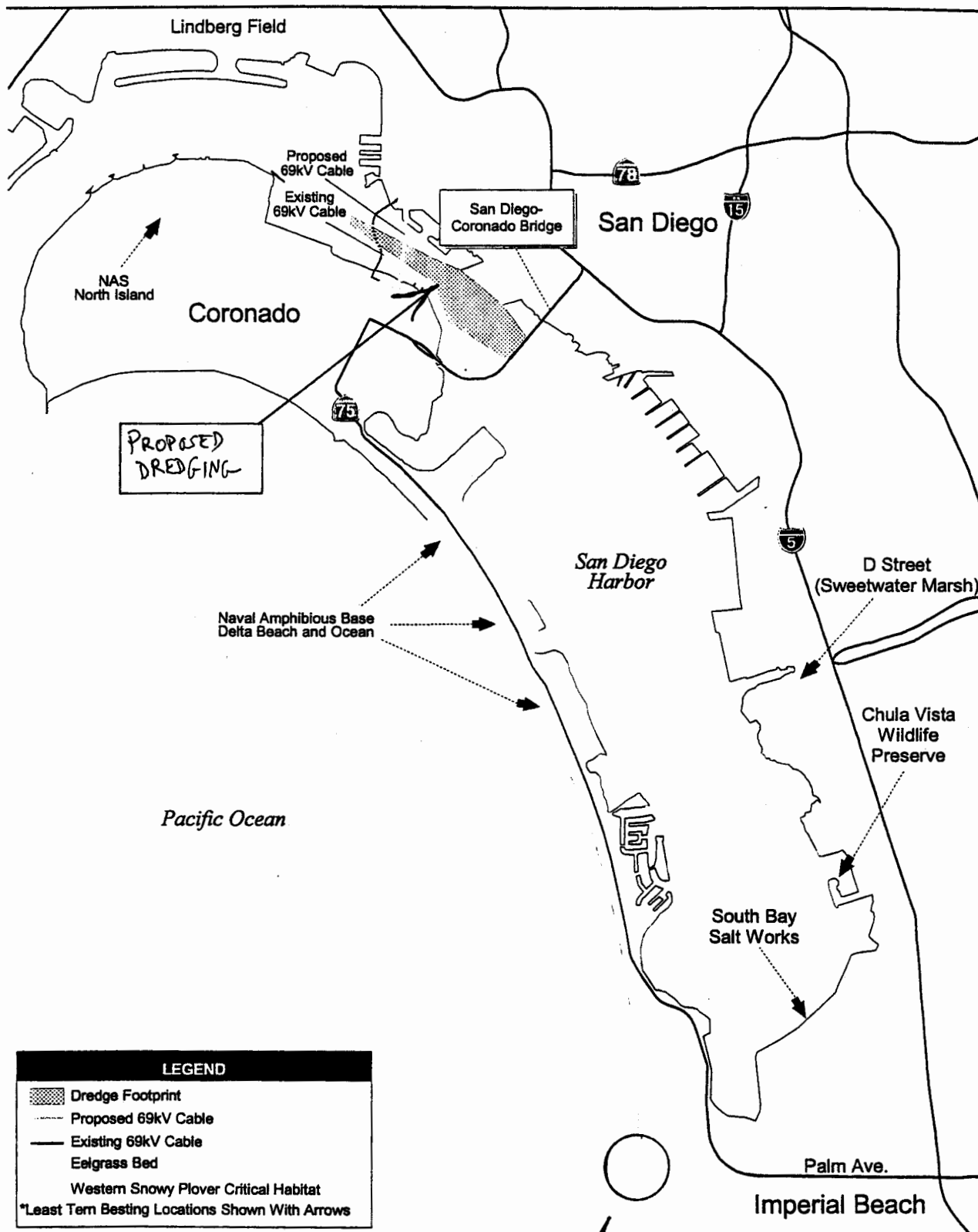


No Scale

Figure 1.1-1

EXHIBIT NO.	1
APPLICATION NO.	CD-90-02

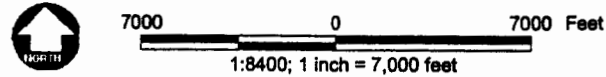
San Diego Harbor  
98.5% SD Harbor Dredging



**LEGEND**

- Dredge Footprint
- Proposed 69kV Cable
- Existing 69kV Cable
- Eelgrass Bed
- Western Snowy Plover Critical Habitat
- \*Least Tern Nesting Locations Shown With Arrows

Source: SANDAG 1995; SanGIS Base Layers; Navy 1999-2000, Eelgrass Survey Data; USFWS 2002, Least Tern Nesting Locations



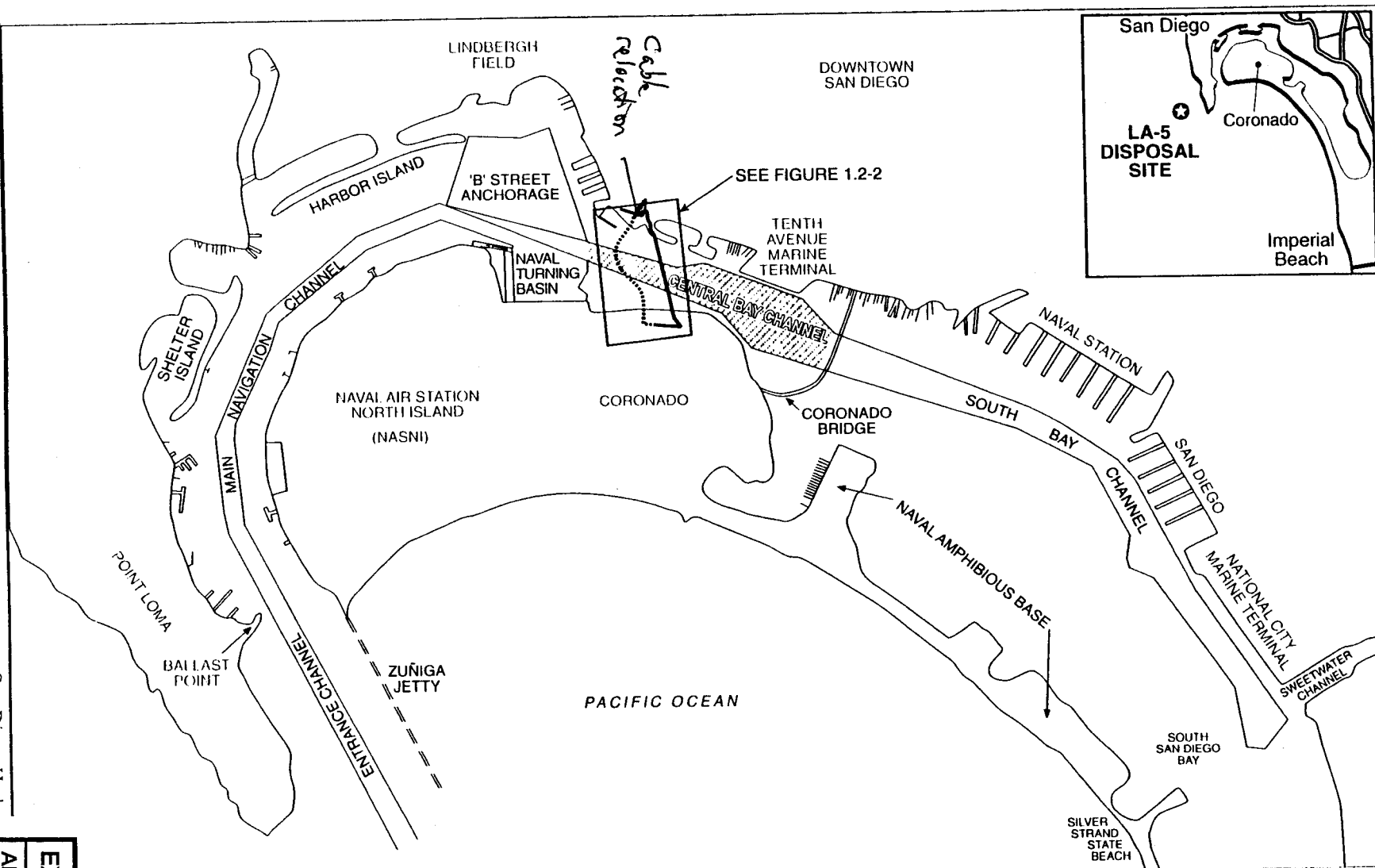
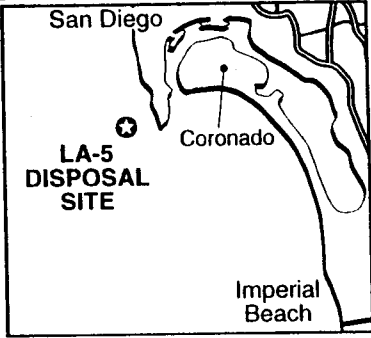
San Diego Harbor Deepening EIS/EIR  
GIS9838 SD Harbor Dredge/GISyig 4.3-1.apr SP83/F6 (T.Jester) 1

**REVISED  
DISPOSAL AREA**

Figure 4.3-1

Sensitive

EXHIBIT NO.	2
APPLICATION NO.	
	CD-90-02



**Figure 1.2-1  
Project Area**

lock Engineering Group 1998



- Proposed Dredge Area
- Existing 69kV Cable
- Proposed 69kV Cable

San Diego Harbor  
9834 SD Harbor Drawings/Figure

EXHIBIT NO. 3	APPLICATION NO. CD-90-02
---------------	--------------------------



FIGURE  
1

Central San Diego Bay Channel Deepening Project - Actual Core Collection Locations

EXHIBIT NO. 4  
 APPLICATION NO.  
 CD-90-02

**Legend**

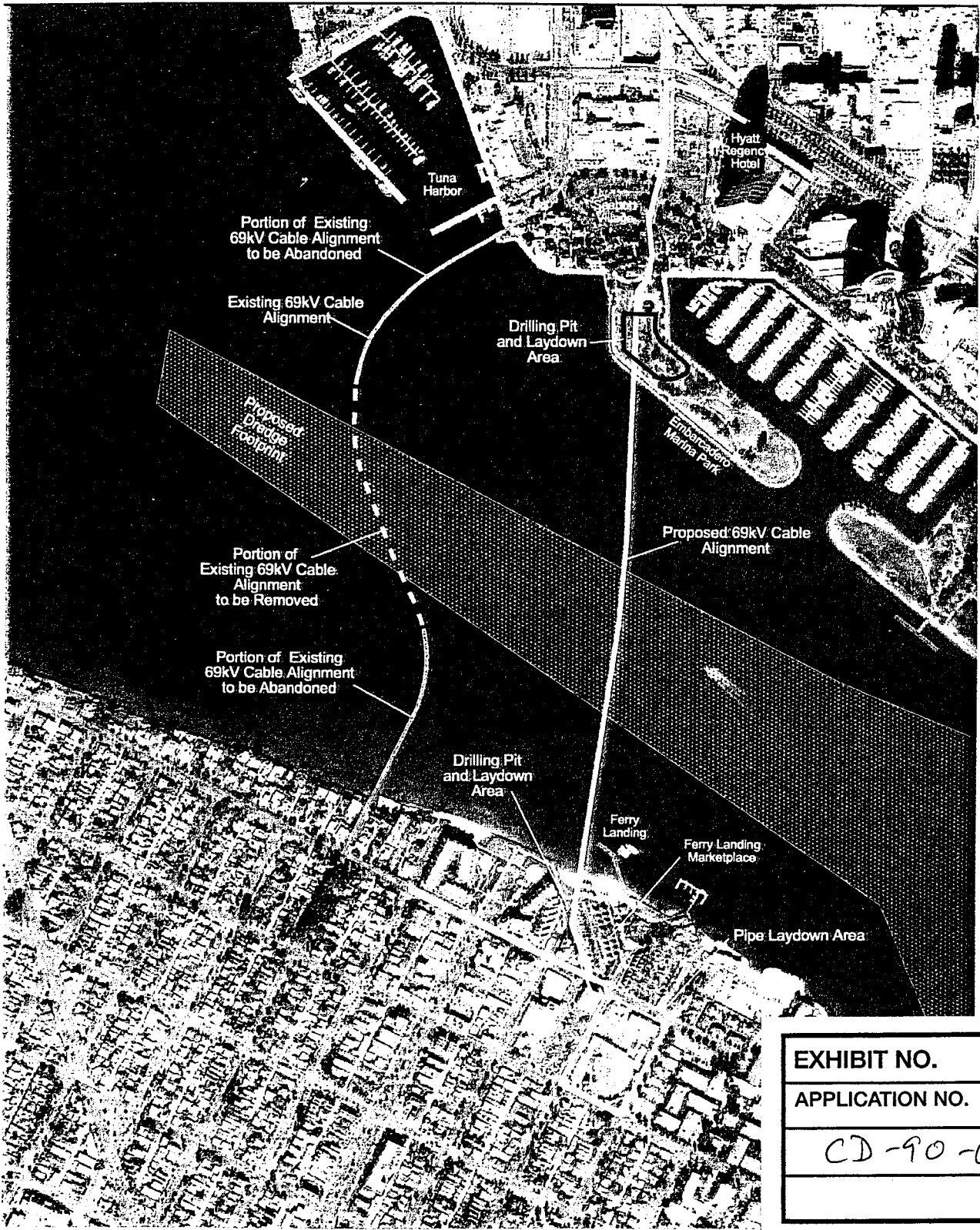
- Restricted Area: Utility Cables Crossing
- Project Boundary
- Actual Core Collection Locations

MAP NOTES:  
 City of San Diego, NAD 83,  
 Zone 408, Feet  
 S:\shubert\sdg\p08\fig\area\_408\_3.mxd  
 Date: 1/25/02

1 inch equals 800 feet

0 200 400 600 800 Feet





Source: SANDAG aerial, SDG&E 2002 for Utility Alignment



800 0 800 Feet



1: 9600; 1 inch = 800 feet

**Figure 1.1-2**  
**Detail of Utility Relocation Area**  
**New Alignment and Laydown Areas**

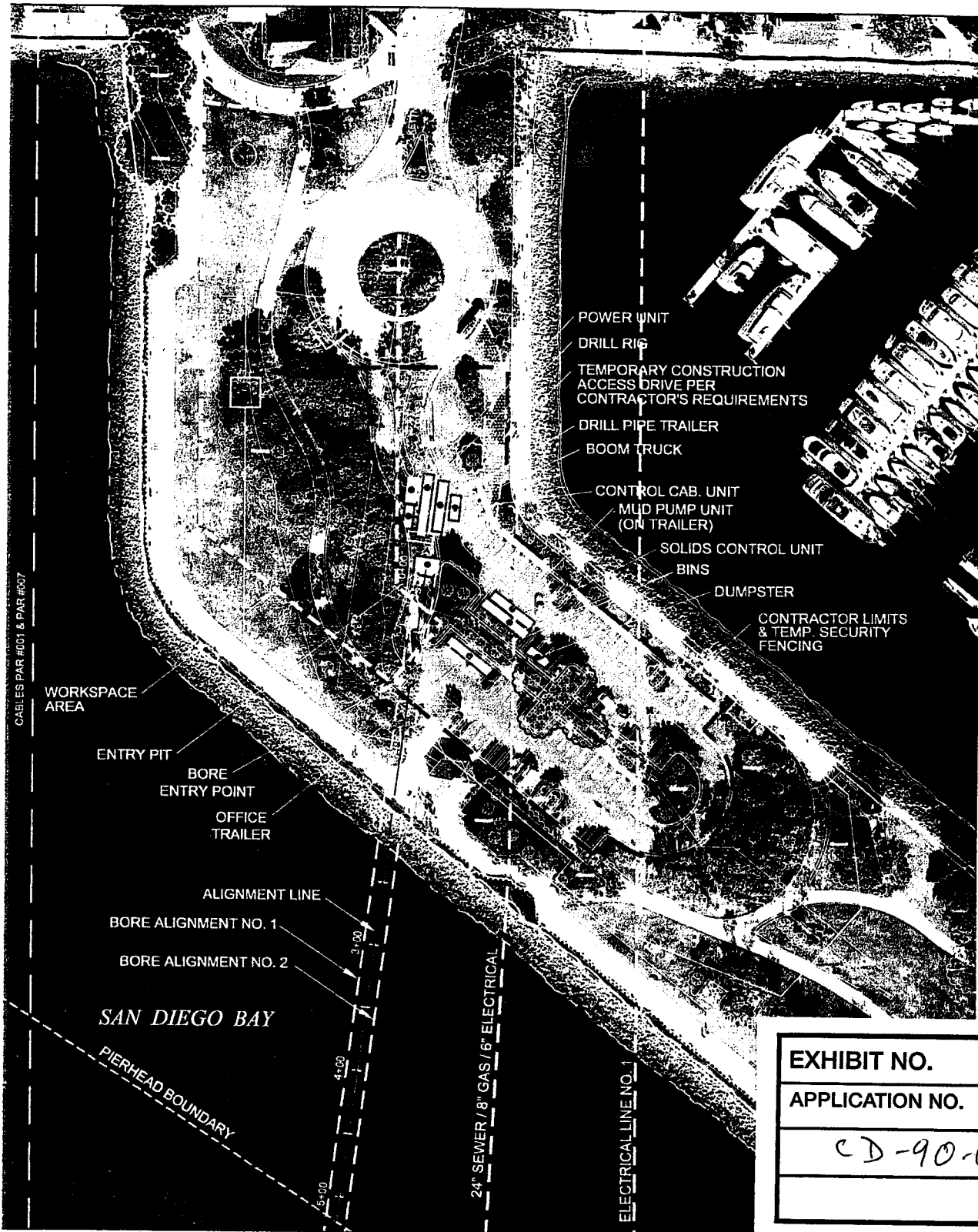
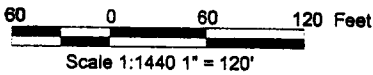


EXHIBIT NO.	b
APPLICATION NO.	CD-90-02

Source: SDG&E September 20 2002



**Figure 3.3-2**  
**San Diego Embarcadero**  
**Marina Park Site**  
**Drill Side**



Source: SDG&E September 20 2002

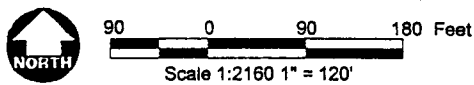


EXHIBIT NO.	7
APPLICATION NO.	
	CD-90-02

**Figure 3.3-3**  
**Coronado Ferry Landing**  
**Market Place Site**  
**Pipe Side**



View to southeast of Embarcadero Marina Park. The drill rig and laydown areas would be located on the far side of the trees near the restroom.



View to the south of the Ferry Landing Marketplace. The drill rig and laydown area would be located in the near portions of the parking lot.

Figure 4.12-2  
Views of Utility Relocation Drilling Sites



## San Diego Harbor Deepening Project Sand-to-Fines Ratio Computation

This article addresses specifically this question: What percentage of the soil located within the geometric boundary of the dredge prism of San Diego Harbor and above the -44 ft MLLWL elevation can be classified as sand? In performing the calculations, these assumptions were made:

- 1) Each core sample is representative of approximately the same tributary area as every other sample.
- 2) The core samples are representative of the actual content within their respective tributary area.

Each core sample was taken to represent the soil in the interval from the mud line to the depth to which the harbor will be dredged in fulfillment of the requirements of the deepening project. Thus, the length of each core sample is different, and reflects only the sand content of the immediate vicinity. To achieve composite or average sand content for the whole harbor, each sample's sand content is multiplied by the length of the sample, and these numbers are summed. When divided by the combined lengths of all samples, this computation yields the average fines (or non-sand) portion of the material as a percentage. It may be axiomatically inferred that all remaining material that is NOT classified as fines must be sand. This figure comes to approximately 80% sand.

Please see the attached spreadsheet for details.

EXHIBIT NO.	9
APPLICATION NO.	
	CD-90-02

# San Diego Harbor Deepening Project

PLANNING DIVISION

02/07/03 FRI 14:33 FAX 2134524204

Exhibit 9, p. 2

Sample #	% Passing 200	Length of Sample (ft)	% Passing x Length of Sample
1.0	9.0	2.5	22.5
2.0	4.6	3.5	16.1
3.0	18.0	3.5	63.0
4.0	15.0	2.8	42.0
5.0	3.0	3.5	10.5
6.0	32.0	2.8	89.6
7.0	36.0	2.2	79.2
8.0	29.0	3.7	107.3
9.0	15.0	3.6	54.0
10.0	8.0	3.7	29.6
11.0	23.0	4.8	110.4
12.0	31.0	3.1	96.1
13.0	40.0	1.8	72.0
14.0	8.0	2.2	17.6
15.0	12.0	2.4	28.8
<b>TOTAL</b>		<b>46.1</b>	<b>838.7</b>

Average % Passing 200 for all samples:  $838.7/46.1=18.19\%$

Average % NOT Passing 200 (sand): 81.8%



San Diego's Regional Planning Agency

101 B Street, Suite 800  
San Diego, CA 92101-4231  
(619) 595-5300  
Fax (619) 595-5305  
www.sandag.org

February 12, 2003

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

**RE: Comments on Federal Consistency Determination for San Diego Harbor Deepening (Central Navigation Channel)**

**MEMBER AGENCIES**

- Cities of
- Carlsbad
- Chula Vista
- Coronado
- Del Mar
- El Cajon
- Encinitas
- Escondido
- Imperial Beach
- Ia Mesa
- Lemon Grove
- National City
- Oceanside
- Poway
- San Diego
- San Marcos
- Santee
- Solana Beach
- Vista
- and
- County of San Diego

**ADVISORY MEMBERS**

- California Department of Transportation
- Metropolitan Transit Development Board
- North San Diego County Transit Development Board
- United States Department of Defense
- San Diego United Port District
- San Diego County Water Authority
- Baja California/Mexico

Dear Mr. Douglas:

I am submitting these comments at the direction of the San Diego Association of Governments (SANDAG) Shoreline Preservation Committee. SANDAG has adopted policies (Regional Dredging Policy, 1991; Shoreline Preservation Strategy, 1993) strongly supporting the use of beach quality dredge material for beach replenishment.

**SANDAG's comments are to request that options for placing the beach suitable portion of the dredge material from the project on or near the beaches in the Silver Strand littoral cell be considered in more detail. The most advantageous placement location would be between the Tia Juana River mouth and the Imperial Beach Pier.**

At the Shoreline Preservation Committee's February 6, 2003 meeting, the U.S. Army Corps of Engineers indicated that evaluation of the most recent sampling of the dredge site shows that 70% of the material is of a grain size and chemical constituency to be compatible with beach replenishment, while 30% was finer grained than sand on potential receiver beaches. The Corps stated conclusion was that the material was unsuitable for beach replenishment and would be dumped in a deep water disposal site.

The strong consensus of the Committee members and their technical and community advisors was that nearshore placement of this material off Imperial Beach appeared to be a cost-effective use of the material as characterized by the Corps at the meeting. The Corps representative sited a guideline that advises against using sand with more than 10% "fines" in beach replenishment. It is very difficult to imagine that nearshore placement of the 70% good sand/30% fine sand dredge material from the harbor deepening project off of Imperial Beach could cause any significant environmental or physical problem. The referenced guideline appears to be unsubstantiated and insupportable in this particular application.

The Committee recognizes the importance of adequately addressing the public safety issues related to the use of San Diego Harbor dredge material which may contain munitions. The Corps, Port District and U.S. Navy are strongly

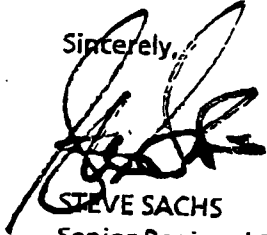
EXHIBIT NO.	10
APPLICATION NO.	
CD-90-02	

encouraged to look at alternative means to mitigate this problem through strategies such as more extensive analysis of the material, screening of munitions, further evaluating the safety of innovative placement methods such as nearshore disposal, or providing funds for use in future beach replenishment projects.

It is important to the San Diego region that beach quality sand dredged from San Diego Bay, a potentially significant long-term source of material to replenish our seriously eroded beaches, not be disposed of in open ocean disposal sites. The region's beaches are very important to our environment, economy, and quality of life. Beach suitable replenishment material is a valuable resource that should be used whenever it becomes available.

Thank you for the opportunity to comment. Please contact me at (619) 595-5346 or at [ssa@sandag.org](mailto:ssa@sandag.org) if you have questions about these comments.

Sincerely,



STEVE SACHS  
Senior Regional Planner

cc: Honorable Duncan Hunter, U.S. Congress  
Captain Christopher Schanze, U.S. Navy  
Jess Van Deventer, Chairman, San Diego Unified Port Commission

PACIFIC  
OCEAN

POINT  
LOMA

NAS  
NORTH  
ISLAND

CORONADO

TURNING  
BASIN

SAN  
DIEGO

1-7

SAN DIEGO BAY NAVIGATION CHANNEL

**LEGEND**

- ① DREDGE AREA
- INNER CHANNEL
- ▨ OUTER CHANNEL

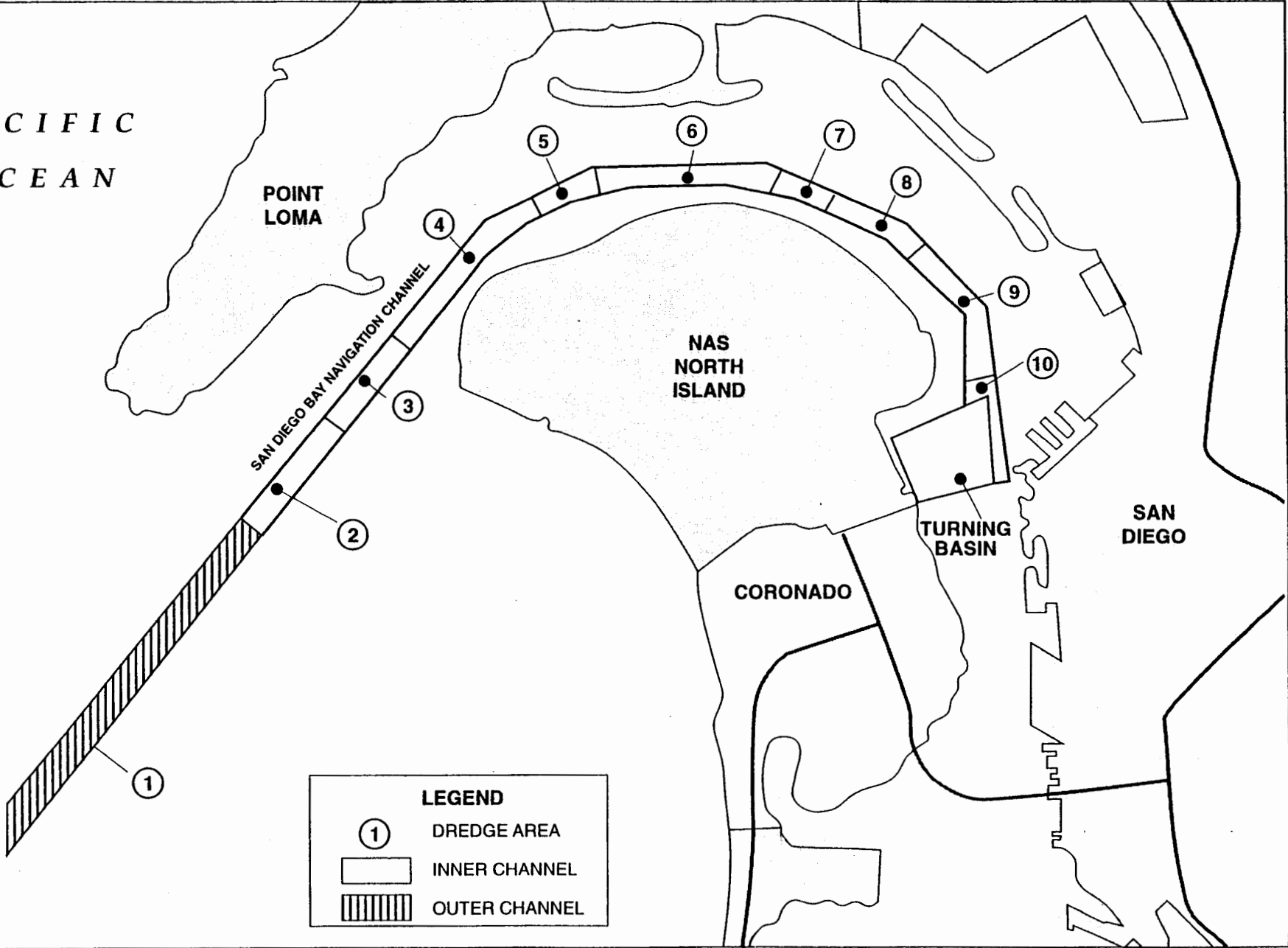


EXHIBIT NO. 11  
APPLICATION NO.  
CD-90-02

Proposed Dredging Plan

FIGURE

1-2

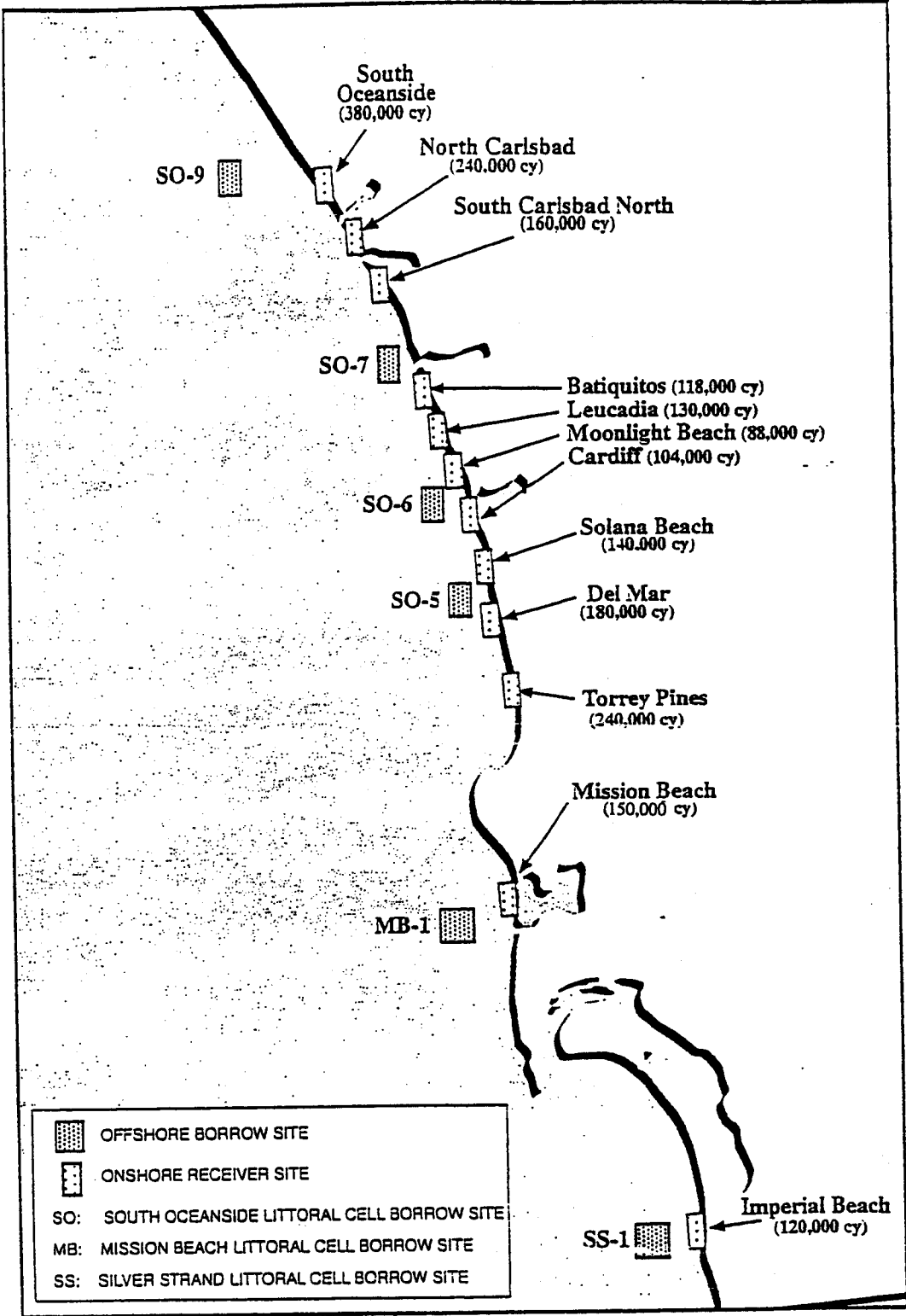


EXHIBIT NO.	12
APPLICATION NO.	
CD-90-02	

ex  
to

**Responses to CCC Questions  
February 13, 2003**

1A. (from February 12, 2003 email to Priscilla Perry) The Corps' beach suitability/sand content analysis, including an assessment of Imperial Beach beach transects from approximately +12 ft. MLLW to -30 ft. MLLW.

**Phone conversation with Chris Sands. The Corps' usually does beach transects from approximately +12 ft. MLLW to -30 ft. MLLW. However, this Imperial Beach sampling (AMEC) was taken from on-shore/on the beach. No sampling was taken from the near-shore area.**

1. The Corps' beach suitability/sand content analysis; otherwise I will assume, based on the information the Corps has submitted to date, that the material is, on average, 83% sand.

**The Corps' beach suitability/sand content analysis was provided via fax on February 7<sup>th</sup> and 10<sup>th</sup>, 2003 as requested. On average, the material is 81.8% sand.**

2. A description of the extent of screening being provided as discussed in the EIS, which states that to avoid placing unexploded munitions in the marine environment, the Corps proposes to screen all dredge materials prior to disposal at LA-5.

**The Corps does not propose to screen all dredge materials prior to disposal at LA-5. The EIS/EIR will be modified where applicable.**

3. A map distinguishing the Corps dredging from the Port's dredging, so that the cores can clearly be attributed to the material they represent.

**A map has been sent via email to you (11:05 am, February 13, 2003).**

4. Clarification as to whether the two are separate dredge projects, occurring at separate times and under separate contracts.

**The Port's dredging project is separate from the Corps' Federal channel deepening project. The Port will go forth with their berth dredging even if the Corps' project does not go through. The two projects will occur at separate times and under separate contracts.**

5. A letter or other communication from EPA that the project has passed all applicable Green Book tests and is suitable for open ocean disposal.

**Steven John (EPA) will provide a response.**

EXHIBIT NO.	13
APPLICATION NO.	
	CD-90-02

6. A list of governmental reviews, if any, that SDG&E will need to obtain prior to relocating the 69 kV electric cables.

**Governmental reviews have been or are currently being done. The Draft EIS/EIR was released for public review in December and closed in late January. We have received comments from the City of Coronado, State Lands Commission, EPA, and SANDAG and are currently responding within our EIS/EIR. Corps is obtaining a 404 Permit and 401 Certification on behalf of SDG&E.**

7. A drilling fluid monitoring plan, or at a minimum a commitment to submit such a plan for Commission staff review and concurrence, prior to commencement of any drilling.

**Please refer to page 10-2 of the Draft EIS/EIR. Under Section 10.3 Biological Resources, Utility Relocation, is a list of mitigation measures and environmental commitments. As stated, the measures listed will be used as part of the proposed action to minimize the possibility of an inadvertent surface return. In addition, Section 10.2 Water Resources, Utility Relocation (pg 10-2) states that a Water Quality Monitoring Plan will be implemented by the contractor at the relocation site.**

8. Clarification of which site the drilling will occur from (San Diego or Coronado – both sites are mentioned in the EIS as the possible primary drill site), or at least an explanation as to when this will be decided.

**To date, the utility relocation drilling will occur from San Diego to Coronado.**

9. An estimate of the number of parking spaces, if any, that will be taken up by SDG&E during cable relocation activities, and an indication as whether any such spaces support coastal recreational activities, as well as whether sufficient capacity exists in the lot(s) to accommodate the temporary (approximately 7 month) construction period.

**Please refer to pages 3-16, 4-64, and 5-60, and Figures 3.3-2 and 3.3-3 of the Draft EIS/EIR. During cable relocation activities, the entire Embarcadero Marina Park (San Diego side) parking lot (150 spaces) and on half of the Ferry Landing Market Place (Coronado side) western parking lot (50 unmetered parking spaces) would be closed for the duration of the drilling operation (approximately 5 months). Parking is available in Seaport Village, which is within walking distance of the Embarcadero Marina Park, in addition to on-street and off-street locations in downtown San Diego (page 5-60). Thus no significant parking impacts are expected for this location.**

**At the Ferry Landing Market Place, 50 unmetered parking spaces out of 300 will be used for the utility relocation. As stated on page 5-60, it is assumed that this parking loss would fill the capacity during peak times and that excess parking would occur on adjacent streets. As a result, walking distances would increase; however, the inconvenience is not considered to cause significant adverse impacts since it is expected that sufficient parking would be available in the area.**



**There will be a temporary loss of 1 block as described on pages 4-64 and 5-60. "This loss of parking would be an inconvenience, but is not considered to be a significant impact because impacts would be temporary (up to 15 weeks) and on-street parking would be expected to be available in the adjacent area, within walking distance of this location" (5-60).**

**Enough parking would be available as to not prohibit or restrict access for coastal recreation. Walkways along the Embarcadero Marina Park and passive recreation areas would remain open during construction (3-16). The utility relocation is planned to begin after the summer season to avoid the summer crowds.**

10. Evidence of landowner permission for the SDG&E to occupy the sites for cable drilling operations.

**The San Diego Port District owns the land that SDG&E will occupy for cable drilling. To date, there is a written conceptual approval for easements that will go to the board on March 25, 2003 for approval.**

11. A map showing where the cable will remain in nearshore waters (as stated on p. H-8 of EIS/consistency determination).

**Please refer to Figure 1.1-2 in the Draft EIS/EIR.**

12. Clarification as whether the Corps continues to intend to dispose of the cable at LA-5, an alternatives analysis for this disposal, and an explanation of why the Corps believes it could expect to receive authorization from EPA or the Commission for cable disposal at LA-5.

**The Corps does not intend to dispose of the cable at LA-5. The cable would be disposed of at an appropriate landfill or recycled (CCC, Appendix H-8). The document will be corrected (page H-7 and wherever applicable).**





## Section 6

# AREAS OF POTENTIAL CONCERN

The PA research focused on a review of documents and reports regarding military munitions, interviews with former and current military personnel as well as the general public, and a review of information regarding mooring locations within and adjacent to San Diego Bay. The results of these efforts are described below.

## 6.1 RESEARCH RESULTS

The bulk of the research effort for this PA involved reviewing reports describing operations that may have caused munitions to be lost or otherwise placed in San Diego Bay (see Appendix D). A few reports describe munitions lost in San Diego Bay; however, over 60 separate reports describe munitions found in San Diego Bay (Section 5.6.1). This suggests that many of the munitions found were never reported lost. Most of the incident reports were from the local Navy EOD detachment covering the time period between March 1995 and December 1999. Unfortunately, similar reports prior to March 1995 are not available. The munitions documented to have been lost in San Diego Bay but not recovered are described in Section 5.6.2. These munitions range in size from small arms rounds to a 425-pound depth charge.

The PA research effort also produced historical charts and photographs that illustrate the mooring locations throughout San Diego Bay (see Section 3.3.2), including nonpier moorings. These areas are important because current and former military personnel describe the most likely places to find lost munitions as being in areas where vessels were loaded and unloaded.

Finally, a substantial effort was made to obtain information relating to munitions in San Diego Bay from former and current military personnel, as well as the general public. Though many avenues were pursued to elicit personal accounts from individuals regarding munitions activities, the volume of information received was very limited. Despite all the advertisements, only two people called the 1-800 number to offer information, and only eight entries were made on the website. None of these individuals knew of munitions lost in San Diego Bay. Twenty-four interview questionnaires (out of approximately 800 that were distributed) were completed and returned, but only 7 offered information related to munitions in the bay. The information from these questionnaires is summarized in Section 5.7 and the questionnaires are presented in Appendix F.

The information presented in the following sections includes a summary of potential munitions locations, associated munitions types, and source(s) for each potential location identified based on the research performed for this PA. This information is divided into potential munitions within the PA study area and those outside the study area.

## 6.2 DISCOVERIES WITHIN THE STUDY AREA

A total of 28 AOPCs have been identified within the PA study area. Some of the areas are more clearly delineated than others, depending on the source(s) of the information. For example, munitions were discovered in an area directly north of Pier 1 at NAVSTA San Diego by a team shooting an underwater video. This is an example of a highly accurate report based on an eyewitness account of the presence of munitions in a specific

## Section 6 Areas of Potential Concern

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area. Other information sources, such as aerial photographs, indicate that military vessels used certain nonpier mooring locations in the bay during WWII. While these vessels *may* have stored munitions, no definitive evidence was found indicating that munitions were handled and/or lost in these areas.

The types of munitions reported within the study area include bullets and shells, bomb casings, depth charges, mines, projectiles, and torpedoes. Refer to Table 6-1 for a summary of these AOPCs. Figure 6-1 shows the location of each AOPC. Detailed summary information for each AOPC can be found on the data worksheets in Appendix G.

### 6.3 DISCOVERIES OUTSIDE THE STUDY AREA

Two AOPCs were identified outside the immediate PA study area. These areas are described at the end of Table 6-1. These areas were identified through historical navigation charts, mooring charts, and written reports. Both areas were historically used for training Navy personnel. One area was used for torpedo practice and the other was used for landing-craft training. For this reason and because of the proximity to the study area, these areas have been included in Table 6-1.

Conclusions and recommendations on further actions to take with regard to the AOPCs identified in the PA are presented in the following section.

### 6.4 AOPC SUMMARY

Based on the findings from exhaustive archive searches and attempts to gather information from current and former military personnel, 28 AOPCs have been identified in the vicinity of the primary ship channels historically used by Navy vessels in San Diego Bay. Two additional AOPCs were identified outside the study area. Some of the AOPCs are based on fairly direct evidence of munitions lost in specific areas, whereas other AOPCs are conservatively based on less specific evidence. The rest of the areas in the vicinity of the primary ship channels historically used by Navy vessels in San Diego Bay appear to pose little or no threat to human health and the environment from exposure to military munitions.

**Table 6-1  
Areas of Potential Concern Summary**

Index No.	Potential Munitions Location	Information Source and Description	Potential Munitions Types
1	North of the Coronado Bridge in central San Diego Bay	Verbal communication with retired Navy personnel and other contacts, who describe the presence and use of a <u>designated ammunition dumping</u> location in this area; <u>map of the area could not be located</u>	Unknown
2	Just west of Pier 12 at NAVSTA San Diego	1946 chart showing Navy moorings including a nonpier mooring labeled as "explosive mooring" indicating the location was used for loading and unloading of ammunition	Unknown
3	Near the southwest tip of Shelter Island	1963 chart showing Navy moorings including a nonpier mooring labeled as "explosives anchorage lighted mooring buoy" indicating the location was used for loading and unloading of ammunition	Unknown
4	Near the northeast tip of Shelter Island	1963 chart showing Navy moorings including a nonpier mooring labeled as "explosives anchorage lighted mooring buoy" indicating the location was used for loading and unloading of ammunition	Unknown
5	Immediately south of channel buoys 5 and 6 where vessels typically travel prior to entering San Diego Bay	a) Verbal communication with retired Navy personnel and other contacts indicating possible unloading of munitions from guns after practice firing and prior to reentering bay and b) reports from civilian divers indicating presence of munitions in this area	Unknown
6	On the exposed rock shelf and in the surrounding sand located approximately 50 yards west of channel buoy 5	Reports from civilian divers indicating munitions in this area	Large bullets and shells
7	South of Ballast Point, east of Point Loma, west of channel buoys 7 and 9, just outside the federal marine reserve	a) Reports from multiple civilian divers indicating munitions in this area and b) various reports indicating that this area is near the former Army and joint Army-Navy coast artillery batteries on Point Loma	Unknown, 20-mm shells, bomb casings
8	Area surrounding the FISC Fuel Pier on Point Loma	a) Reports documenting historical munitions handling associated with the magazines at the Naval Supply Depot, Point Loma, and b) reports of the previous discovery of munitions in this area	Unknown

(table continues)

Table 6-1 (continued)

Index No.	Potential Munitions Location	Information Source and Description	Potential Munitions Types
9	Area surrounding the northeast tip of Shelter Island	Reports that document munitions handling, loading, storage, and training operations for the antisubmarine ordnance land firing range on Shelter Island during WWII	Practice depth charges
10	Area surrounding the ammunition pier (currently Pier Bravo) on NAS North Island	a) Reports that document munitions handling and loading associated with the magazines at NAS North Island since prior to WWII and b) interview with Navy veteran who described possible loss of a full pallet of munitions after leaving the ammunition pier in rough seas	Unknown, 5-inch rounds
11	Area surrounding the Mole Pier at NAVSTA San Diego	a) Reports that document munitions handling and loading for storage magazines at the former Destroyer Base (currently NAVSTA San Diego) since prior to WWII and b) reports of previous discovery of munitions in this area	Unknown
12	Area surrounding the former carrier pier located at the northeast corner of NAS North Island	a) Reports documenting the pier mooring location since prior to WWII, b) reports describing this area as one of two possible locations of a lost depth charge associated with a 1941 seaplane crash, and c) reports of previous discovery of munitions in this area	Unknown, one possible 425-lb. depth charge
13	Area between the piers at NAVSTA San Diego	a) Reports that document the area as a long-time pier mooring location used primarily for "mothballing" ships and for ship repair and maintenance and b) reports of previous discovery of munitions in this area	Unknown
14	Small area in central San Diego Bay between the NAS North Island quay wall and FISC Broadway	a) Reports that describe this area as one of two possible locations of a lost depth charge from 1941 seaplane crash and b) reports of previous discovery of munitions in this area	Unknown, one possible 425-lb. depth charge
15	Area immediately north of Pier 1 at NAVSTA San Diego	a) Reports that document this as a long-time pier mooring location, b) report of ammunition discovered in this area while shooting an underwater video, and c) report of previous discovery of munitions in this area	25-mm rounds equipped with high explosive incendiary projectiles (9 rounds remaining unaccounted for)

(table continues)

Table 6-1 (continued)

Index No.	Potential Munitions Location	Information Source and Description	Potential Munitions Types
16	Midway between the 1945 San Diego Bay channel entrance buoys 1 A and 1 B	Report describing the location and contents of the Navy vessel PC815, which sank in 85 feet of water in 1945. The patrol craft was reportedly carrying: (42) 400-lb. depth charges (24 with pistols in place), (75) mousetraps, (325) 3-inch rounds, (2,000) 40-mm rounds, (3,000) 20-mm rounds, (25) hand grenades, and miscellaneous small arms ammunition.	Unknown
17	Location described by a 1983 <i>San Diego Union</i> article as 1.5 miles southwest of Ballast Point. This location corresponds fairly closely with the location where the Navy vessel PC815 sank in 1945.	In 1983 Navy divers told the San Diego media that a sunken patrol craft containing approximately 800 pounds of ammunition consisting of 3-inch projectiles, aerial bombs, and small antisubmarine charges known as hedgehogs would be countermined in place using C-4 plastic explosives. After seeing the explosion that resulted from countermining efforts, Navy divers remarked that additional explosives must have been aboard the sunken craft and that additional explosives may remain in the area below the seafloor.	Primarily 3-inch shells, aerial bombs, and hedgehog depth charges; if the vessel that was countermined in 1983 was PC815, potential munitions also include 400-lb. depth charges (some may have pistols in place), mousetraps, 40-mm rounds, 20-mm rounds, hand grenades, and miscellaneous small arms
18	Approximately 0.5 mile southwest of the southwest tip of NAVSTA San Diego	a) Historic Navy mooring charts that show nonpier moorings in this area and b) reports that describe shallow-water aerial torpedo testing in south San Diego Bay is estimated to have occurred in this area	Practice torpedoes
19	Approximately 500 yards due west of the FISC Broadway Pier	1920 photographs of aerial torpedo practice or demonstrations in this area	Practice torpedoes
20	NAS North Island bayside shoreline from the ammunition pier to the former carrier pier	Various reports describing this area as the shoreline of long-time Navy base including a) pier mooring locations, b) seaplane mooring locations and ramps, and c) previous discovery of munitions	Unknown

(table continues)



Table 6-1 (continued)

Index No.	Potential Munitions Location	Information Source and Description	Potential Munitions Types
21	Naval Amphibious Base Coronado bayside shoreline	Various reports and photographs describing and depicting this area as being used for a) a long-time pier mooring location for landing craft and patrol craft (primarily north side), b) location of landing-craft training operations, and c) previous discovery of munitions	Unknown
22	Area located immediately south of the eastern side of Point Loma and just west of channel buoy 7	a) Area where depth charges were reportedly dropped for practice during WWII, b) near channel entrance where, according to retired Navy personnel, munitions may have been unloaded by vessels prior to entering San Diego Bay, and c) near area where civilian divers have reportedly seen munitions	Unknown
23	Inside San Diego Bay entrance channel north of navigation buoys 5 and 6 and south of navigation buoys 14 and 15	a) Area where aircraft taking off from North Island reportedly crashed into water; b) near channel entrance, where munitions may have been unloaded by vessels prior to entering San Diego Bay; and c) near area where civilian divers have reportedly seen munitions	Unknown
24	Inside the primary ship channel beginning at buoys 14 and 15 and extending north, then east, then south toward NAVSTA San Diego	a) Aerial photos showing parts of this area being used for nonpier mooring locations for various types of military vessels and b) navigation charts that designate this area as part of the primary ship channel for Navy vessels entering and leaving the harbor	Unknown
25	North of Ballast Point and east of Point Loma	a) Navy mooring charts indicating that this area is a long-time nonpier mooring location for small vessels and tow targets, b) various reports indicate that this area is near the former joint Army-Navy coast artillery batteries on Point Loma, and c) verbal communication with retired Navy person suggested that some small arms ammunition was lost in this area	Unknown, .30-caliber rounds
26	Area from the tip of Ballast Point to the western shore of NAS North Island extending north about 200 yards	a) Several reports describing the planting of antisubmarine mines at the channel entrance between 1898 and 1942	Antisubmarine mines
27	Area surrounding the west tip of Harbor Island	a) Historic Navy mooring charts showing nonpier moorings in this area and b) reports of previous discovery of munitions in this area	Unknown
28	Area east of the southern half of the Naval Amphibious Base from the shoreline extending eastward approximately 0.5 mile	a) Aerial photos depicting landing-craft training in this area and b) reports describing this area as part of the south bay seaplane area	Unknown

(table continues)

Table 6-1 (continued)

Index No.	Potential Munitions Location	Information Source and Description	Potential Munitions Types
<b>Areas Outside the Study Area</b>			
29	Area along the Pacific Ocean side of the Naval Amphibious Base	a) Aerial photos and reports that depict and describe this area as being used for landing-craft training, b) part of the torpedo practice range from the early 1920s until after WWII, and c) reports of previous discovery of munitions in this area	Small arms rounds, practice torpedoes
30	Large area in the Pacific Ocean directly south of the southern shore of NAS North Island extending southwest to the Mexican border	a) Historic Navy mooring charts showing nonpier moorings in this area, b) part of the torpedo practice range from the early 1920s until after WWII, and c) reports of practice torpedoes lost in this area	Unknown, practice torpedoes

Acronyms/Abbreviations:

FISC – Fleet Industrial Supply Center

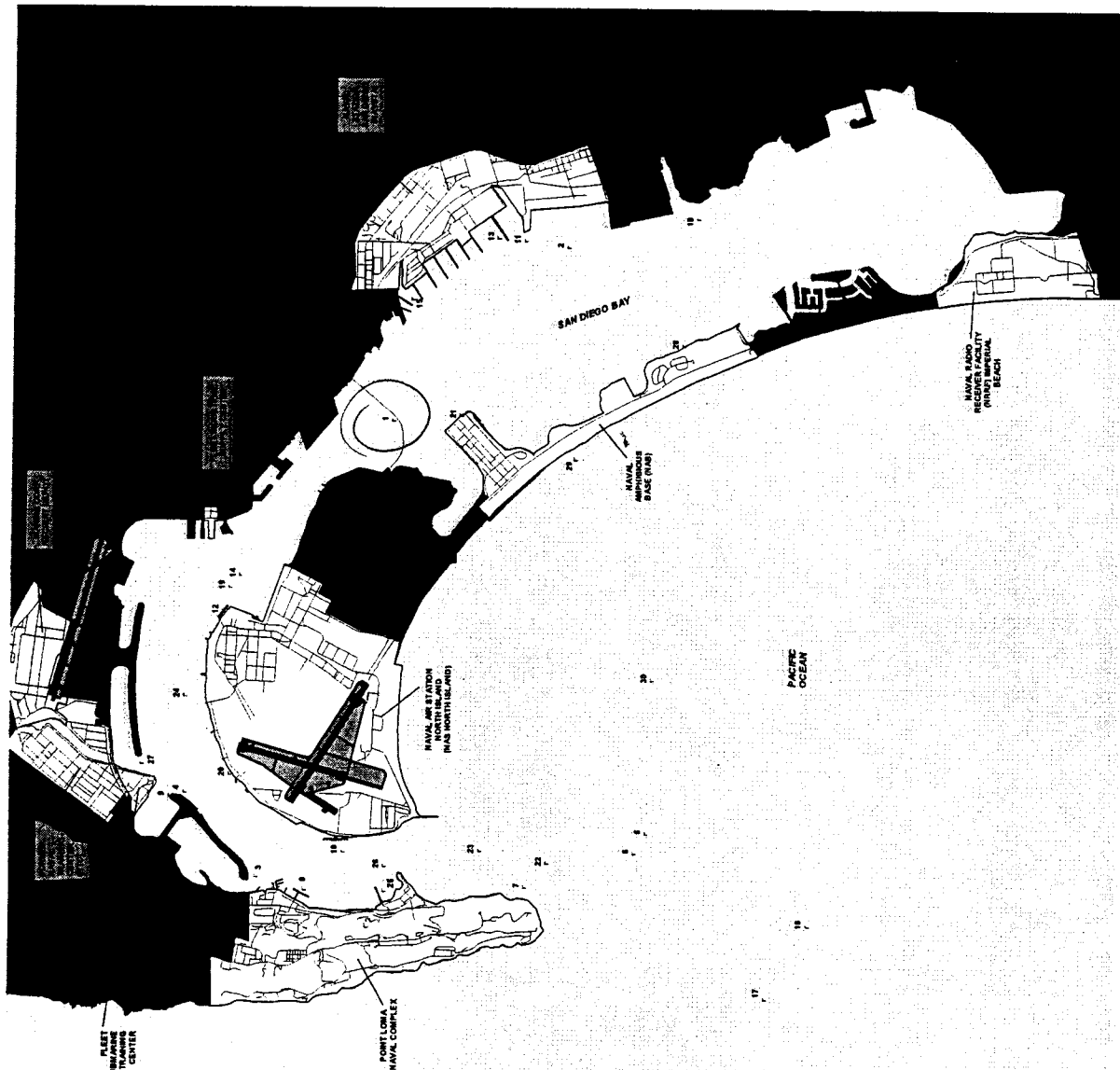
lb. – pound

mm – millimeter

NAS – Naval Air Station

NAVSTA – Naval Station

WWII – World War II



**LEGEND**

1. UNIDENTIFIED LOCATIONS OF INTEREST IN AREA AROUND PERIODICALLY MAINTAINED AIRCRAFT

2. AIRCRAFT MAINTENANCE CENTER

3. AIRCRAFT MAINTENANCE CENTER

4. AIRCRAFT MAINTENANCE CENTER

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27. AIRCRAFT MAINTENANCE CENTER

28. AIRCRAFT MAINTENANCE CENTER

**NOTES**

1. THE LOCATION OF INTEREST IS INDICATED BY A NUMBERED CIRCLE.

2. THE NUMBERED CIRCLE IS REFERRED TO AS A "CIRCLE OF INTEREST".

3. THE NUMBERED CIRCLE IS REFERRED TO AS A "CIRCLE OF INTEREST".

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28. THE NUMBERED CIRCLE IS REFERRED TO AS A "CIRCLE OF INTEREST".



3000 0 3000 Feet

Member Association of San Diego, San Diego  
 By Primary Ship, Charters and U.S. Shores  
 Figure 8-1  
 Area of Interest  
 S. S. Edgar County, California  
 Bunker Industrial, Inc.  
 P.O. Box 1000  
 San Diego, CA 92110  
 CLEAN 11 Program

Index No.	Information Source and Description
1	1. Information Source and Description
2	2. Information Source and Description
3	3. Information Source and Description
4	4. Information Source and Description
5	5. Information Source and Description
6	6. Information Source and Description
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29	29. Information Source and Description
30	30. Information Source and Description

## Section 9

# CONCLUSIONS AND RECOMMENDATIONS

This section presents a summary of the conclusions that can be drawn from the PA, and the recommendations based on the PA.

## 9.1 CONCLUSIONS

The conclusions are presented by area.

### 9.1.1 Beach Replenishment Areas

Onshore munitions sweeps and the diving debris surveys performed at the Oceanside, Mission Beach, and Del Mar beach replenishment areas were exhaustive; there is little chance that munitions resulting from the U.S.S. Stennis beach replenishment efforts remain. The surveys at the Oceanside beach were performed with magnetometers every day for more than 2 months without finding any munitions before search efforts were discontinued. The surveys at Mission Beach and Del Mar were discontinued because the beach had been reduced to cobble, and the dredged material deposited as offshore beach replenishment had been completely dispersed as a result of the strong winter storms.

### 9.1.2 San Diego Bay Primary Ship Channels

After an exhaustive search for the possible source of munitions in sediment from the San Diego Bay primary ship channels, an exact source of the munitions found during beach replenishment could not be pinpointed. The Navy and other military services have a long history of activity in the San Diego Bay primary ship channels that includes training with and transport of munitions and eras of wartime preparation when munitions handling was more common and more frequent. No evidence was found that indicates dumping or implies that large quantities of munitions are present in the sediment. ~~Evidence was found indicating that small quantities of mostly smaller ordnance may be present in sediment in the San Diego Bay primary ship channels (see the AOPCs in Section 6).~~

## 9.2 RECOMMENDATIONS

~~Time-critical or emergency removal actions do not appear to be warranted by any of the information uncovered in this PA.~~ The routine handling of reported munitions in San Diego Bay by the EOD detachment fulfills the function of emergency removal action whenever potential imminent hazard from munitions is reported.

Further action is not recommended at the Oceanside, Mission Beach, or Del Mar beach replenishment areas.

It is recommended that further action be conducted under the CERCLA process for the San Diego Bay primary ship channels. It is recommended that an overall operable unit be used to address the potential risk that underwater munitions in sediment may pose.

EXHIBIT NO.	17
APPLICATION NO.	
CD-90-02	
Navy Munitions Survey	

PARKING AND PUBLIC ACCESS ISSUES – SDG&E UTILITY UPGRADE PROJECT

Seaport Village (619) 235-4014 provides its customers 2 hours of free parking with any purchase and only \$3 an hour thereafter. The cost for unvalidated parking is \$3.00/hour.

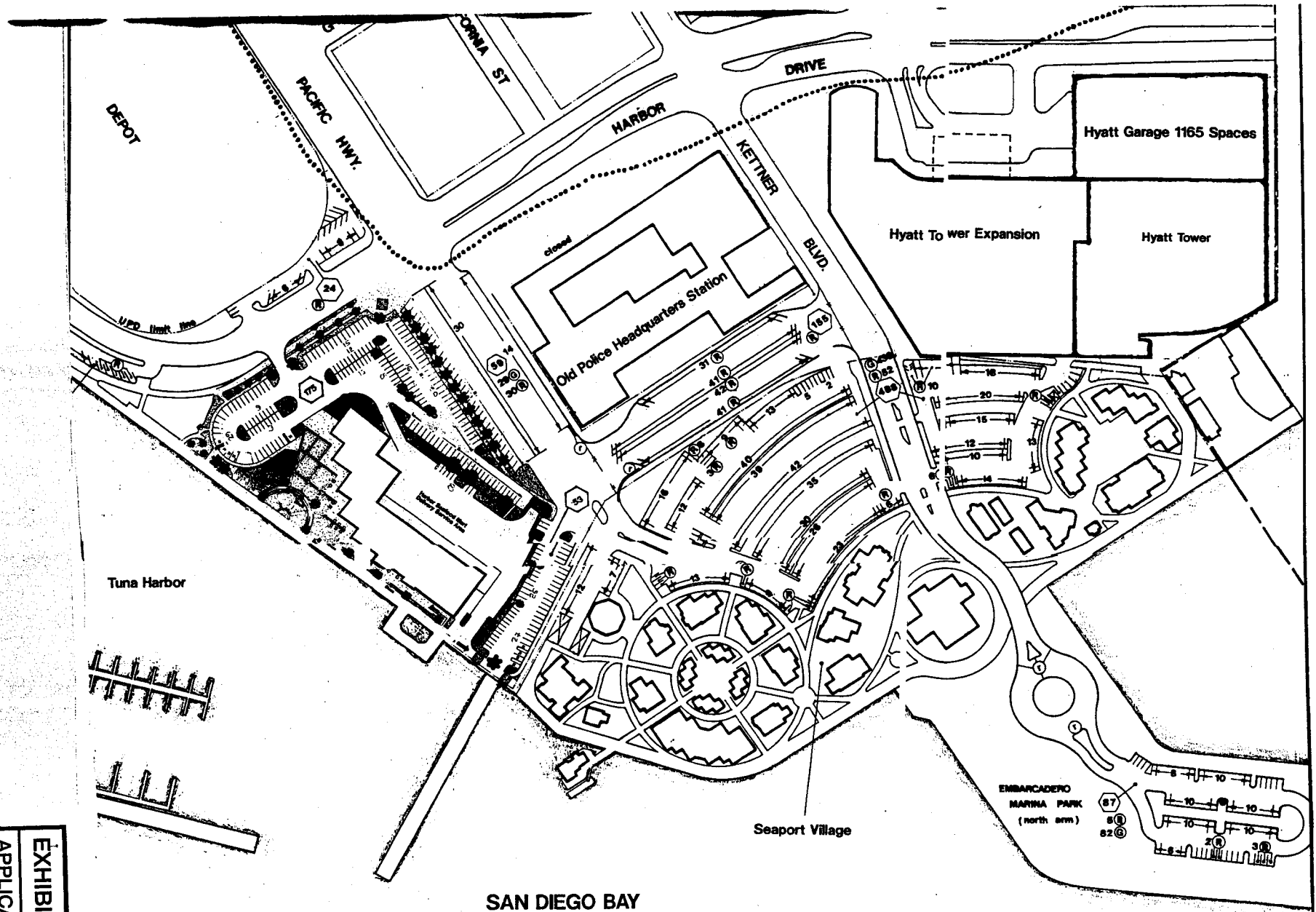
The parking meters at the Embarcadero Marina Park cost \$1.00/hour with a 2-hour time limit.

Construction of the new Hyatt tower will be completed prior to the commencement of this project. Thus, approximately 40 parking spaces will become available after the construction vehicles and construction workers for this project leave.

Port District Conditions of Approval

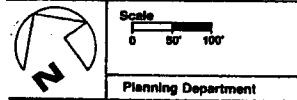
1. The Embarcadero Marina Park North shall remain open to the public at all times.
2. All pedestrian promenades including the walkway around the parking lot shall remain open to the public at all times.
3. The parking lot containing 86 spaces at the Embarcadero Marina Park North may be closed to the general public during construction up to a maximum of 3 months. The expected construction period is Sept. 2, 2003 to Nov. 26, 2003. The parking lot will be partially fenced (see attached map) and 37 parking spaces will remain open for use by construction workers, general maintenance vehicles, emergency vehicles, and catering trucks.
4. A temporary access road shall provide access to the 37 parking spaces in the Embarcadero Marina Park. One or possibly two ficus trees will have to be boxed for the placement of the temporary access road. These trees shall be replanted after construction is complete and replaced if they do not survive transplantation.
5. Replacement public parking shall be made available at Seaport Village, Harbor Seafood Mart, and/or the Old Police Headquarters site.

EXHIBIT NO.	18
APPLICATION NO.	
	CD-90-02
	Port of San Diego



SAN DIEGO BAY

EXHIBIT NO. 19  
 APPLICATION NO. CD-90-02



Planning District 3  
 CENTER CITY EMBARCADERO

SEAPORT VILLAGE AREA PARKING INVENTORY

Date: 6 April 2003  
 Rev. skk  
 Date: 12/11/02  
 No: 0124113

