

CALIFORNIA COASTAL COMMISSION

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**RECORD PACKET COPY****Th 6b****PROPOSED FINDINGS****ON CONSISTENCY DETERMINATION**

Consistency Determination No.	CD-28-01
Staff:	MPD-SF
Commission Vote:	5/9/2001
Hearing on Findings:	6/14/2001

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

Los Angeles River Estuary, City of Long Beach, and offshore of Long Beach (disposal at North Energy Island Borrow Pit, with cap material coming from South Energy Island Borrow Pit), mouth of Los Angeles River and offshore of Long Beach, Los Angeles Co. (Exhibits 1-2)

**PROJECT
DESCRIPTION:**

Pilot studies using 130,000 cu.yds. dredging, for treatment and offshore disposal of contaminated sediment (Exhibits 1-5)

**PREVAILING
COMMISSIONERS:**

Commissioners Desser, Dettloff, Estolano, Kruer, Lee, McCoy, Reilly, Woolley, and Chairman Wan.

**SUBSTANTIVE
FILE DOCUMENTS:**

See page 16.

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers (Corps) has submitted a consistency determination for a pilot project to study various components of contaminated sediments management in the Los Angeles/Long Beach harbor area. The project is both an outgrowth of regional contaminated

sediments management in general, as well as an opportunity to benefit navigation by conducting advance maintenance dredging in the Los Angeles river estuary. The project involves both aquatic capping and chemical treatment with subsequent upland disposal. The aquatic capping component of the project would consist of dredging 130,000 cubic meters (cu. m.) of contaminated sediment from the Los Angeles River Estuary, located in Long Beach Harbor near (immediately upstream of) the Queensway Bridge, and placing the material in the North Energy Island Borrow Pit (NEIBP) near (east of) Island White offshore of Long Beach. The material would then be capped with up to approximately 130,000 cu. m. of clean material dredged from the South Energy Island Borrow Pit (SEIBP). The sediment treatment (cement stabilization) component of the project would first consist of a "bench-scale" (laboratory study) mixing the contaminated sediments with a cement-based product to produce structurally stable soil material. This would be followed by a larger project transporting up to 15,000 cu. m. of contaminated sediments to a staging area, mixing the sediments with a cement-based product, with the ultimate goal of using the material for beneficial reuse as a source of structural fill.

The specific objective of the pilot studies is to evaluate potential contaminated sediment remediation technologies and evaluate them for their effectiveness, implementability, impacts to the environment, and costs. The studies are reviewed by the Contaminated Sediments Task Force and will be used by the Corps in support of the Los Angeles County Regional Dredge Material Management Plan (DMMP) Feasibility Study. At the Commission's May public hearing, the Corps submitted the necessary project details and finalized monitoring measures, as well as commitments to do everything within its power to assure that funds will be available to assure the long-term monitoring measures will be continued beyond the three-year monitoring period for which funds have already been secured. With this additional information and level of commitment, the project is consistent with the marine resource, dredging, water quality, and environmentally sensitive habitat policies (Sections 30230, 30231, 30233(a), and 30240) of the Coastal Act.

Concerning other issues raised, the dredging would benefit navigational safety for the Catalina Ferry, and recreational boating activities located in Queen's Way Marina. Therefore, the project is consistent with the recreational boating policies (Sections 30220 and 30224) of the Coastal Act. Due to the contamination issues the material is not suitable for beach replenishment. Therefore, the project is consistent with the sand supply policy (Section 30233(b)) of the Coastal Act.

PROJECT SUMMARY

I. Background/Project Description. In coordination with the Contaminated Sediment Task Force (CSTF) for the Los Angeles County Region,¹ the Corps is studying a number of alternative measures for the treatment and/or disposal of contaminated sediments. The measures include: (1) Aquatic Capping; (2) Cement Stabilization; (3) Sediment Washing; and

¹ Formed in 1998 to address the problem of managing contaminated dredged sediments.

(4) Sediment Blending. The measures include both pilot studies and bench scale (laboratory) studies. The objective of the pilot studies is to evaluate potential contaminated sediment remediation technologies to provide technical information for the Los Angeles County Regional DMMP Feasibility Study (to be prepared by the Corps), and to evaluate the technologies for their effectiveness, implementability, impacts to the environment, and costs.

The subject of this consistency determination is the pilot studies for aquatic capping and cement stabilization. The pilot studies involve dredging up to 130,000 cu. m. of material just upstream of the existing Los Angeles River navigation channel and the Queensway Bridge, at the mouth of the Los Angeles River (Exhibit 3). The dredge site would be within an irregular polygon approximately 200 meters (m) long by 150 m wide, which would be dredged to a depth of elevation -4 to -6 m mean lower low water (MLLW).

The aquatic capping component of the project would consist of disposal of most of the 130,000 cubic meters (cu. m.) in the North Energy Island Borrow Pit (NEIBP) near (east of) Island White offshore of Long Beach (Exhibits 2 & 4). The material would then be capped (Exhibit 5) with up to approximately 130,000 cu. m. of clean material dredged from the South Energy Island Borrow Pit (SEIBP).

The sediment treatment, or "Cement Stabilization," component of the project would first consist of a "bench-scale" (laboratory study) mixing contaminated sediments with a cement-based product to produce structurally stable soil material. This would be followed by a larger project transporting up to 15,000 cu. m. of contaminated sediments to a staging area, mixing the sediments with a cement-based product, with the ultimate goal of using the material for beneficial reuse as a source of structural fill.

The Corps provides additional details on both studies, as follows

Aquatic Capping Pilot Study

Sediment Source – LARE [Los Angeles River Estuary]

Material from the LARE would be dredged mechanically (most likely with a clamshell bucket), ... transported ... to the NEIBP on a split-hull barge, and discharged from the barge into the disposal site.... [The] dredging would be a 24-hour operation ... [lasting] up to one month to complete.

Disposal Site – NEIBP

The disposal site at the NEIBP is located about 4 km (2.5 miles) east [of the] proposed ... dredge site. These numerous depressions within the NEIBP, and a[n]...l area for the aquatic capping disposal site has been identified (Figure 4 [Exhibit 4]). ...

The NEIBP is a relatively steep walled depression (Figure 5 [Exhibits 5-6]). The tops of the pit walls are approximately -8 to -10 m MLLW (26 to 33 feet). The bottom of the pit is at approximately 18.5 m MLLW (60 feet). Within the cell, disposed sediments from the LARE will be placed in a layer about 2 to 2.5 m thick (7-8 feet). LARE sediments will be released from a split-hull barge.

After a consolidation period of about one month, a 1 to 1.5 m (3 to 4 foot) layer of clean cap material will be placed over the LARE sediment (most likely hydraulically) potentially yielding in a final elevation of between -14.5 and -15.5 MLLW (48 to 51 feet) assuming that no consolidation takes place. ...

Cap Material Source -SEIBP

... The proposed capping material was dredged by the COE from the Queen's Gate entrance in Long Beach Harbor. Disposal at the SEIBP occurred from November 1998 through Spring 1999. Prior to dredging, the material was tested in compliance with the Clean Water Act (CWA) and deemed suitable for open ocean disposal.

The cap source sediments are at a depth of between -9 and -13 m MLLW (30 to 43 feet) within the SEIBP The designated area for capping material is approximately 100 m by 200 m. The volumes of cap material ... will not exceed ... [100,000] cu. m. Capping and placement activities would take approximately one month.

One option for dredging SEIBP material would be using a hydraulic dredge (most likely a cutterhead). In this case, cap sediment would be transported by floating pipeline to the NEIBP located approximately 1 km (3,280 feet) away. Dredged material would be placed in thin lifts over the capping site until sufficient capping depth is achieved (likely 1-1.5 m deep). It is likely that a submerged diffuser of some sort would be used to control the spread of cap material for the hydraulic placement option.

A second option for cap placement is to dredge capping material using a mechanical dredge on a floating derrick. Dredged material would be placed on a split-hull barge and released above the NEIBP to create the cap. ...

Cement Stabilization Pilot Study

The Cement Stabilization Pilot Study would involve dredging up to 15,000 cu. m. of contaminated sediment from the same dredge site that would be used for the Aquatic Capping Pilot Study, near Queensway Marina. ...

Standard mechanical dredging equipment would be used for dredging activities. The dredged material would be placed on haul barges and transported via tugboat to a dockside or upland location at either the Port of Long Beach (POLB) or the Port of Los

Angeles (POLA). The haul barge would have a fence (solid metal or wood barricades) about 4 feet high. The number of barges required for transport would depend on the volume of material to be dredge and the size of the barges. ...

Dredged material would first undergo a natural dewatering process which would take anywhere from eight hours to several days. After dewatering is complete, the material would be blended with reagents such as Portland cement, lime kiln dust, and/or fly ash to encapsulate and immobilize the contaminants and bind fine material in the sediment matrix. The stabilized dredged material would then undergo a curing process. The dewatering, blending, and curing processes could occur either dockside on barges or at an upland site.

Stabilized material will be transported via ... truck to its final destination [Port of Long Beach permitted fill site]. Stabilized material will be loaded either mechanically or with an end loader, if appropriate (not feasible from a barge).

The pilot projects would also include pre-construction, construction, and post-construction monitoring to assess the potential impacts of dredging, treatment, and cap placement, as well as the long-term viability of the cap. The Corps has prepared a monitoring plan, which is summarized in Exhibit 9. The Corps also states that "best management practices" (BMPs) would be implemented to avoid or minimize impacts during construction.

II. Background/Related Commission Action. The area proposed for dredging has not previously been dredged; however the material would eventually migrate downstream and fill the existing navigation channel that has been previously dredged to maintain the navigation channel leading to the Queens Way marina. In 1995, the Corps dredged 300,000 cu. yds.² of material from the Los Angeles River channel as an emergency action, with disposal at the borrow pit at the mouth of the river (Exhibit 8)³. The Commission subsequently concurred in an after-the-fact consistency determination, which included a temporary cap (CD-43-95). After-the-fact testing analysis showed the material to be contaminated, as had been suspected. The Corps capped this material with 175,000 cu. yds. of clean material (Pier J access dredging)⁴.

The Commission staff raised concerns about this concept, because the cap thickness, 1.75 to 5 feet, may not be enough to fully isolate the contaminated material and the grain size of the cap material may be too small to assure its permanence. Additionally, the Corps had not conducted

² One cubic meter = 1.3 cubic yards. One cu. yd. = 0.76 cu. m.

³ This borrow pit is located offshore of Island Grissom and was originally created to supply the material for the energy island. The City of Long Beach used this pit several times as a disposal site for Los Angeles River dredging, between 1989-1994.

⁴ The Corps accomplished this through its permitting of the Port of Long Beach's dredging, which the Commission reviewed as (CC-41-95 and 5-95-111).

any of the studies necessary to assure that it designed the cap to isolate the sediments from disturbance associated with ocean currents, wave energy, Los Angeles River flood flows, or benthic infauna (burrowing organisms).

Because of Commission concerns, the Corps, EPA, and the Commission staff negotiated modifications to that project. Those modifications included placement of a temporary cap, monitoring it, and designing a permanent contained aquatic disposal site at this location. Thus, in CD-43-95 the Corps committed to providing a consistency determination within three years, which would analyze three years of monitoring of the temporary cap, and either provide data to demonstrate that the cap will perform adequately as a permanent solution, or design a new cap or an alternative solution.

In 1997, the Commission concurred with a Corps consistency determination for 100,000 cu. yds. of maintenance dredging of contaminated sediments in the Los Angeles River, with disposal in the same borrow pit as the previously discussed project. While concerns were raised about the need to cap the material with clean sediment, the Corps convinced the Commission that the sediment quality of the dredged sediments were the same as those in the disposal area, and thus that no cap was necessary, and further, that if the site acted as a sediment trap as suspected, it would be capped naturally. The Commission agreed in its concurrence with CD-5-97, finding:

The ... disposal site is in the same vicinity (Los Angeles River estuary) as the dredge site, the sediment in the disposal site is physically and chemically similar to the material proposed for dredging, and the pit is functioning as trap for contaminated material transported by the Los Angeles River. The revised project also includes an evaluation of the borrow pit as a sediment trap to provide information to support preparation of a Contaminated Sediment Management Strategy by the Los Angeles basin Contaminated Sediment Taskforce.

At the same time the Commission noted:

Based on this information, the Commission, at this time, agrees with the Corps' conclusion not to cap the material disposed from this project. However, the Commission has concerns that future monitoring and studies may provide evidence that capping of contaminants in the borrow pit may be needed. If necessary, the Commission will evaluate this issue through the Corps' agreement for future consistency review of a permanent cap over the material deposited from the 1995 emergency project.

The Corps also dredged 163,800 cu. yds. of contaminated material (and 390,000 cu. yds. of clean material) from the Los Angeles River in 1999/2000, with disposal of the contaminated material at a confined site in the Port of Long Beach (Slip 2), and the clean material at EPA approved offshore disposal site LA-2 (CD-94-98).

III. 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) of the affected area. If the Commission certified the LCP and incorporated it into the California Coastal Management Program (CCMP), the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has incorporated the City of Long Beach LCP into the CCMP.

IV. Federal Agency's Consistency Determination. In consistency determination CD-028-01 the Corps has determined the project to be consistent to the maximum extent practicable with the CCMP.

V. Commission Decision. On May 9, 2001, the Commission passed a motion to concur in the Corps' consistency determination CD-028-01 and in doing so adopted the following resolution:

Concurrence

The Commission hereby **concurs** with consistency determination CD-028-01 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.

VI. Staff Recommendation. The staff recommends that the Commission pass the following motion in support of its action:

MOTION. I move that the Commission **adopt** the following findings in support of its concurrence in the Corps' consistency determination CD-028-01.

The staff recommends a **YES** vote on this motion. Pursuant to section 30315.1 of the Coastal Act, adoption of findings requires a majority vote of the members of the prevailing side present at the May 9, 2001, hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action on the consistency determination are eligible to vote. A majority vote by the prevailing Commissioners listed on page 1 of this report will result in adoption of the findings set forth in sections I-III and VII of this document.

VII. Findings and Declarations. The Commission finds and declares as follows:

A. Dredging. Section 30233(a) of the Coastal Act provides, in part, that:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and

where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

....

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

Section 30233(a) of the Coastal Act imposes a three-part test on dredging and filling projects: (1) an allowable use test; (2) an alternatives test; and (3) a mitigation test because is an allowable use for dredging and filling. While the project is a pilot study designed to address contamination sediments management in general, the Corps notes that:

A secondary purpose of this project is to remove shoaled material from the federal navigation channel. While this material does not pose an immediate hazard to most navigation, future storms could move the shoal closer to the Queensway Marina entrance. Removal of contaminated sediment would also benefit the local environment.

The Commission finds that both the pilot study nature of the project, as well as its function to help maintain navigability of the Los Angeles River channel, qualify it as an allowable use for maintenance dredging of existing navigation channels, and that the project is therefore consistent with the first test of Section 30223(a)(2).

Concerning the second (alternatives) test, the Corps provided additional project details and monitoring provisions prior to the hearing, including: (1) site-specific disposal and cement stabilization locations; (2) elimination of an underwater berm at the dredge disposal (i.e., NIEBP) site; (3) additional water quality evaluation, monitoring and protection provisions incorporated into the project⁵, which the Corps developed in consultation with, and refined in response to suggestions made by, the members of the Contaminated Sediment Task Force (CSTF)); and (4) additional analysis and water quality monitoring for the cement stabilization/barge dewatering component. With this additional information, along with commitments for long term monitoring as discussed below, the Commission finds that the dredge disposal component represents the least environmentally damaging alternative. The Commission also finds that the cement stabilization/barge dewatering component represents the least environmentally damaging alternative, for two reasons: (1) the Commission agrees with the Corps that one of the benefits of the pilot study to be analyzing what happens during a "typical" application of the technology; and (2) the filtration as described by the Corps, which would include use of filter fabric screening the water before its discharge, would be equally efficient to any filtration that might occur on a pier or dock.

⁵ Final Aquatic Capping Pilot Study Monitoring Plan, Los Angeles County Regional Dredge Material Management Plan Pilot Studies, Los Angeles District Corps of Engineers, May 2001.

Concerning the third (mitigation) test, the Commission's main concern is the need to continue to monitor the disposal site for the life of the CAD, not just the initial three year period for which funds for monitoring have already been secured. The Corps made it clear to the Commission that it understands the importance of long term monitoring and that it would not neglect its responsibility for long term monitoring of the site. The Corps accompanied these assertions of understanding with commitments that 1) it will request funds for long term monitoring of the project through its Operation and Maintenance (O&M) program and "place a high priority on the request," and 2) if it is unsuccessful in achieving funding through normal budget channels, it will make it a high priority for use of existing "O & M" funds over which it has discretion. The Corps states (Exhibit 10):

... the District's prioritization of work packages within the District's budget request is completely under our control. Thus, a request for monitoring funds will be given the highest priority possible to assure funding for that fiscal year. If circumstances are such that monitoring funds are not allocated – for whatever reasons – it is possible to re-program funds during the fiscal year to cover this need. Doing so, of course, will take funds away from some other work item, but we have latitude in making such decisions internally.

Because our funding is dependent on the will of Congress, it is not possible for us to "guarantee" funding in any future Fiscal Year. However, we are given sufficient discretionary authorities—before and during any Fiscal Year--to give us a high level of confidence that future years' monitoring will be funded from the O&M appropriation.

If this were a typical dredging project, the Commission would find this commitment insufficient. However, the Commission accepts the Corps' commitment in the context of this project, only because it is a beneficial pilot project that provides regional benefits that assist in the long term management of contaminated sediments. However, in doing so the Commission fully expects that, in implementing this project, the Corps will act in a manner that is fully in accordance with its commitments for long-term monitoring. With this understanding, the Commission concludes that the project is consistent with the dredging and filling policy (Section 30233(a)) of the Coastal Act.

B Water Quality and Marine Resources. 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 that:

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

In past dredging projects, the Corps tested sediments dredged from the Los Angeles River navigation channel and found them to contain elevated levels of contaminants. The proposed project includes aquatic disposal of contaminated sediments at the North Energy Island Borrow Pit (NIEBP), to be capped with clean sediments taken from the South Energy Island Borrow Pit (SEIBP). The material for all three areas was tested; the test results showed:

Various contaminants were found in the Los Angeles River Estuary sediments. In most cores for most chemicals, the bottom sections had higher concentrations than the top sections. No contaminants were detected at a concentration that would pose a human health hazard. Most contaminants were at concentrations that were either below the ER-L level or above the ER-L level but below the ER-M level⁶. Contaminants at levels between the ER-L and ER-M may have the potential to have some effects on sensitive organisms. Thus, the concentrations of most chemicals in the Los Angeles River Estuary sediments were at levels that pose little risk to marine organisms. The exception was several pesticides, including chlordane and DDT derivatives, that exceeded the ER-M level in most of the Los Angeles River core samples.

Sediments in the NEIBP also contained detectable levels of many contaminants. As was true of the L.A. River samples, most of the contaminants in the NEIBP were at concentrations that pose little risk to marine organisms. Some samples in the NEIBP had concentrations of chlordane and DDT derivatives that exceeded the ER-M level at which effects on benthic organisms are probable.

Contaminant levels in the SEIBP were low. No contaminants exceeded the ER-M level. DDE in one core exceeded the ER-L level.

⁶ ER-L and ER-M: National Oceanic and Atmospheric Administration's (NOAA) ER-L level (Effects Range-Low) and ER-M level (Effects Range-Median) (Long, 1995). The ER-L is the level of concentration of a contaminant in the sediment that has possible biological effects; the ER-M is the level of contaminant concentration that has probable biological effects.

Metals and organotins were the only contaminants found in the process water after the various elutriate, leaching, extraction, and precipitation tests. One or two metals in each of the tests exceeded water quality standards.

The Corps consistency determination states concerning biological impacts in general:

Dredging at the LARE

The most direct impact of dredging on biological resources would be the probable elimination of sedentary and slow-moving benthic organisms which have colonized the area since the last dredging episode. However, due to regular sediment deposition from the Los Angeles River, particularly during storm events, sedentary and slow-moving benthic organisms at the proposed dredge site likely represent a dynamic community is influenced by naturally occurring sedimentation. ... Impacts to the benthic community would be short-term and insignificant since effects would be concentrated in a small area. ...

Planktonic organisms in the water column may suffer some short-term, localized stress from the turbidity created during dredging and disposal. ... However, planktonic species are adapted to large losses from naturally high mortality ...and ... impacts of dredging and disposal on phytoplankton and zooplankton are expected to be insignificant.

A secondary impact of dredging would be the potential resuspension of sediments in immediate and adjacent areas. However, suspended sediments occur routinely during storm events and other natural movement of material and through disturbance caused by routine boat traffic. If water quality monitoring indicates that turbidity controls are needed, then techniques would be implemented to reduce dredging related impacts.

There is considerable technical evidence to support that turbidity and associated suspended sediment impacts from dredging operations are minimal. For example, a number of researchers compared suspended sediment and turbidity levels of dredge operations to those from natural events such as storms and floods and found that these natural events far exceed the turbidity levels created by most dredging operations (reviewed in Hartman 1996). A five year study of this issue by the COE (DMRP 1978) concluded:

"The difficult problem of the effects of turbidity or suspended sediment particles on both water quality and aquatic organisms was addressed with significant results. It was found that, except in unusually environmentally sensitive areas such as coral reefs, turbidity is primarily a matter of aesthetic impact rather than biological impact. It is, of course, often advisable to schedule dredging and disposal operations to avoid disrupting spawning activities and fish migrations. However, studies showed that most adult organisms can tolerate

turbidity level and durations far in excess of what dredging and disposal operations produce. These studies, conducted in the laboratory and verified in the field, involved a variety of marine, estuarine, and freshwater organisms."

Short-term increases in turbidity would be monitored during construction, should there be an exceedance, additional turbidity control methods would be employed (see [EA] Section 6 and Appendix F). In addition, a sampling and monitoring plan for the dredge area is proposed to assess the pre-construction condition, conditions during construction, and the post-construction condition (See Appendix C and D). The COE will conduct pre-construction and construction monitoring. The CSTF and COE will determine responsibility for post-construction monitoring.

Placement in the NEIBP

Disposal impacts are expected to be similar to those defined above for the dredging operation. Disposal of the dredged material at the NEIBP would occur with a split-hull barge in single placement events

The impacts of cap placement would be short-term and it is unlikely that a significant benthic community would have re-established in the short time (2 weeks to 1 month) required for the consolidation process. Therefore, potential impacts would be limited to those associated with turbidity and resuspension. These impacts are expected to be negligible and monitoring would be conducted to ensure the impacts are insignificant. Capping material from the SEIBP would be placed either with controlled split-hull placement, hydraulic pipeline, or mechanical placement. Controlled placement of capping material would minimize the potential of sediment resuspension. It would also ensure that cap placement successfully isolates the target area where potentially contaminated material from the LARE is placed. Potential impacts from capping activities would be minimal.

Capping of contaminated sediments is one of the solutions to the region's contaminated sediments management problems being studied by the CSTF and is an appropriate area for pilot studies. These studies, as well as the overall project concept, are consistent with overall Coastal Act goals for protecting marine resources and water quality. The key to maximizing these benefits is assuring that the studies are well designed, will provide useful information, and will be monitored both to assure adverse effects are minimized, as well as to assure they will be effective in helping to answer some of the regional sediment management questions. On May 8, 2001, the Corps provided a more complete monitoring plan than had been originally submitted, and which had been developed in consultation with the Contaminated Sediments Task Force. This plan (summarized in Exhibit 9) addresses preconstruction/baseline conditions, and post construction (short term and long term) monitoring needs, and includes water column monitoring, bathymetry monitoring, sediment profile imaging, cap coring, and surface sediment chemistry, and benthic community sampling. With these additional monitoring details, and the commitment to continue to fund long term monitoring (see

discussion, page 9), for the reasons discussed in the previous section of this report the Commission is able to determine that the contaminants will remain isolated and that the project would not adversely affect marine resources and water quality of the coastal zone. Therefore, the Commission concludes that the project is consistent with the marine resource and water quality policies (Sections 30230 and 30231) of the Coastal Act.

C. Endangered Species. Section 30240 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 those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Federally-listed threatened or endangered animal species that may occur in the project area include: California brown pelican (*Pelecanus occidentalis californicus*); California least tern (*Sterna antillarum browni*); Western snowy plover (*Charadrius alexandrinus nivosus*) and Green sea turtle (*Chelonia mydas*). State listed threatened or endangered species include the Peregrine falcon (*Falco peregrinus anatum*), and Belding's savannah sparrow (*Passerculus sandwichensis beldingi*). Several species of marine mammals may be transient visitors to the harbor and the disposal site, but the Corps states they "are not expected to be affected by this project." In its consistency determination, the Corps describes the potential impacts on listed species as follows:

Turbidity from dredging and disposal could prevent [brown] pelicans from foraging in the immediate vicinity of the dredge, although the species may find suitable foraging habitat near the fringe of any turbidity plume that may form. ... Pelicans would find other areas in the harbor and offshore to forage and would not be affected by the dredging or capping activities. These birds do not breed in the area, and are not held to a relatively limited geographic area as are locally nesting birds.

Dredging and disposal operations are expected to be completed during Least tern nesting season. Interference with least tern foraging could be a concern if turbidity from dredging affected surface water clarity over a substantial portion of preferred foraging areas during the breeding season. ... Most foraging occurs within 3 km (2 miles) of nest sites and the LARE dredging will occur 5 km (3 miles) away. In a recent tern nesting survey of the LARE (Chambers Group 2000), the survey station immediately to the northwest of Queensway Bridge showed no foraging activities by least terns. This station is immediately to the southeast of the project dredge site (Figure 9 [Exhibit 8]). ... At the Island Grissom borrow pit, approximately midway between the dredge and disposal site and approximately 8 km (5 miles) from the nesting

colony, 50 foraging flights and 157 foraging dives were observed during the 2000 nesting season. As mentioned before, since foraging was observed at the LARE/Island Grissom borrow pit, it is assumed that foraging may also occur in shallow waters near the disposal site. The actual disposal site, however, is within deeper waters of the NEIBP, which is unlikely foraging habitat for the least tern. ...

Although the COE does not expect this project to adversely affect least terns, the COE will commit to implementing a turbidity monitoring program to protect both general water quality and tern foraging habitat. The intent of this monitoring program is to ensure that any turbidity plume that may be formed is minimized, and that significant turbidity does not extend beyond the immediate dredge or disposal areas. The specific procedures are outlined in Appendix D and E.

The COE has determined that this project will not affect any Federally-listed threatened or endangered species, and that formal consultation (pursuant to Section 7 of the Endangered Species Act) is not required at this time.

The endangered species concerns raised by the project primarily concern the California least tern and the California brown pelican, and are two-fold: (1) in the short term, turbidity and temporary release of contaminants during dredging could affect foraging by these species; and (2) in the long term, if the capped material is not monitored, contaminants could be re-released into the marine environment and the food chain, ultimately potentially adversely affecting these two species.

The Corps proposes to perform the dredging and disposal during the least tern season (April 1 thru Sept. 15); however as stated above the Corps has committed to implementing a turbidity monitoring program to protect both general water quality and tern foraging habitat. The Corps points out the dredge and disposal areas are not critically important feeding areas, and the information to be gleaned from this pilot project (including comparisons of turbidity in general and contaminant concentrations in the water column) should in the future assist the Commission and the Contaminated Sediments Task Force in developing more effective turbidity controls. In addition, the overall benefits of the pilot project in facilitating long term management of contaminated sediments in the region should also contribute to the long term protection of these species. As discussed on page 9, with a finalized monitoring plan for the aquatic component of the project, and a commitment for long term funding for this monitoring, the Commission concludes that the project is consistent with the environmentally sensitive habitat policy (Section 30240) of the Coastal Act.

D. Recreational Boating. Section 30220 of the Coastal Act provides that "Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses. Section 30224 of the Coastal Act provides, in part, that "Increased recreational boating use of coastal waters shall be encouraged..."

Shoaling of Los Angeles River estuary interferes with recreational boating at the Queen's Way Marina. In its consistency determination, the Corps states:

The proposed dredging of the LARE, subsequent disposal at the NEIBP, capping at the NEIBP with SEIBP sediments, and handling of dredged material at on barges or upland at a portside facility for cement stabilization would not cause a significant adverse impact upon public access to the Los Angeles/Long Beach Harbor area, local beaches, or associated recreation facilities. Public access would need to be limited on a temporary basis within the immediate area of the dredging and disposal operations for safety reasons.

The dredging and disposal operation would be conducted such that obstruction to navigating vessels is minimized. The operation would be bounded by buoys and other markers to ensure that navigators are aware of the operation and can safely avoid the area. The dredge operator shall move the dredge for law enforcement and rescue vessels whenever necessary. By improving navigability, this project will have the overall positive effect of enhancing public access through the LARE near the Queensway Marina. In addition, the information provided by the pilot project would help to guide long-term sediment management within Los Angeles County.

The main boating activity in the Queen's Way Marina is the Catalina Ferry. Within the LA/LB Harbor complex, several major charter boat companies provide charter service to Avalon and Isthmus Cove on Santa Catalina Island, including Catalina Cruises in Queen's Way Marina. These recreation charters also serve specialized activities, including sportfishing, scuba diving, whale watching, and harbor touring. While the proposed dredging has been designed primarily to serve as a pilot project to assist in long term management of contaminated sediments, as the Corps points out it will also improve navigation in the relatively short term, by removing material that would naturally migrate into and cause shoaling within the Los Angeles river navigation channel. In addition, in the long term, if it expedites or assists in long term sediment management issues, it would least indirectly foster benefits to maintenance of existing navigation channels on a regional basis, thereby supporting and protecting recreational boating uses within a number of navigation channels. The Commission therefore finds that the proposed project is consistent with the recreational boating policies (Sections 30220 and 30224) of the CCMP.

E. Sand Supply. Section 30233(b) of the Coastal Act provides that:

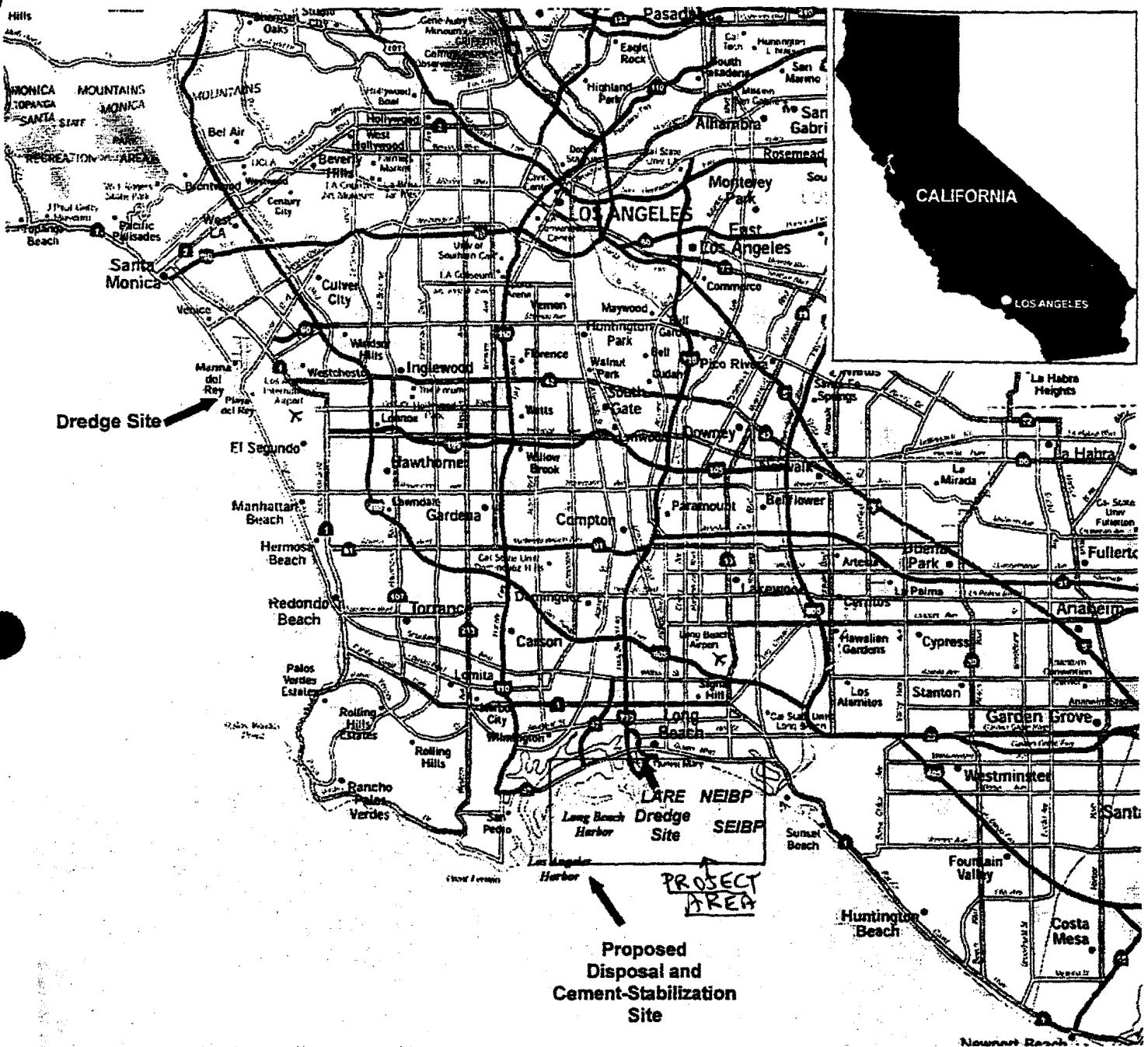
Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

In the past, sediment dredged from the Los Angeles River estuary has been too finely grained to use for sand supply purposes. The sediment analysis prepared for the current proposal

indicates the material averages between 42% and 86% sand. However, even if portions of the material were suitable based on grain size analysis, due to the contamination issues discussed above the material is not suitable for beach replenishment. The Commission therefore finds the project consistent with the sand supply policy (Section 30233(b)) of the Coastal Act.

VIII. Substantive File Documents:

1. Draft Environmental Assessment, Los Angeles River Estuary Pilot Study, Los Angeles County Regional Dredge Material Management Plan Pilot Studies, Los Angeles District Corps of Engineers, March 2001.
2. Results of Physical and Chemical Analysis of Sediments Proposed for dredging in the Los Angeles River Estuary, Los Angeles District Corps of Engineers, April 2001.
3. Consistency Determinations CD-043-95, CD-005-97, CD-94-98 (Corps, Los Angeles River).
4. Consistency and Negative Determinations ND-163-97, CD-016-82, CD-013-84, CD-057-86, CD-023-88, CD-031-91, CD-053-92, CD-068-94, CD-88-94, ND-112-94, ND-022-96, and CD-002-98 (Corps, Marina del Rey).
5. *Ecological Evaluation of Proposed Discharge of Dredged Material into Ocean Waters* ("Green Book"), EPA/Corps of Engineers, February, 1991.
6. Consistency Determination CD-052-00 (EPA, Palos Verdes Shelf Pilot Capping Project).
7. Final Aquatic Capping Pilot Study Monitoring Plan, Los Angeles County Regional Dredge Material Management Plan Pilot Studies, Los Angeles District Corps of Engineers, May 2001.



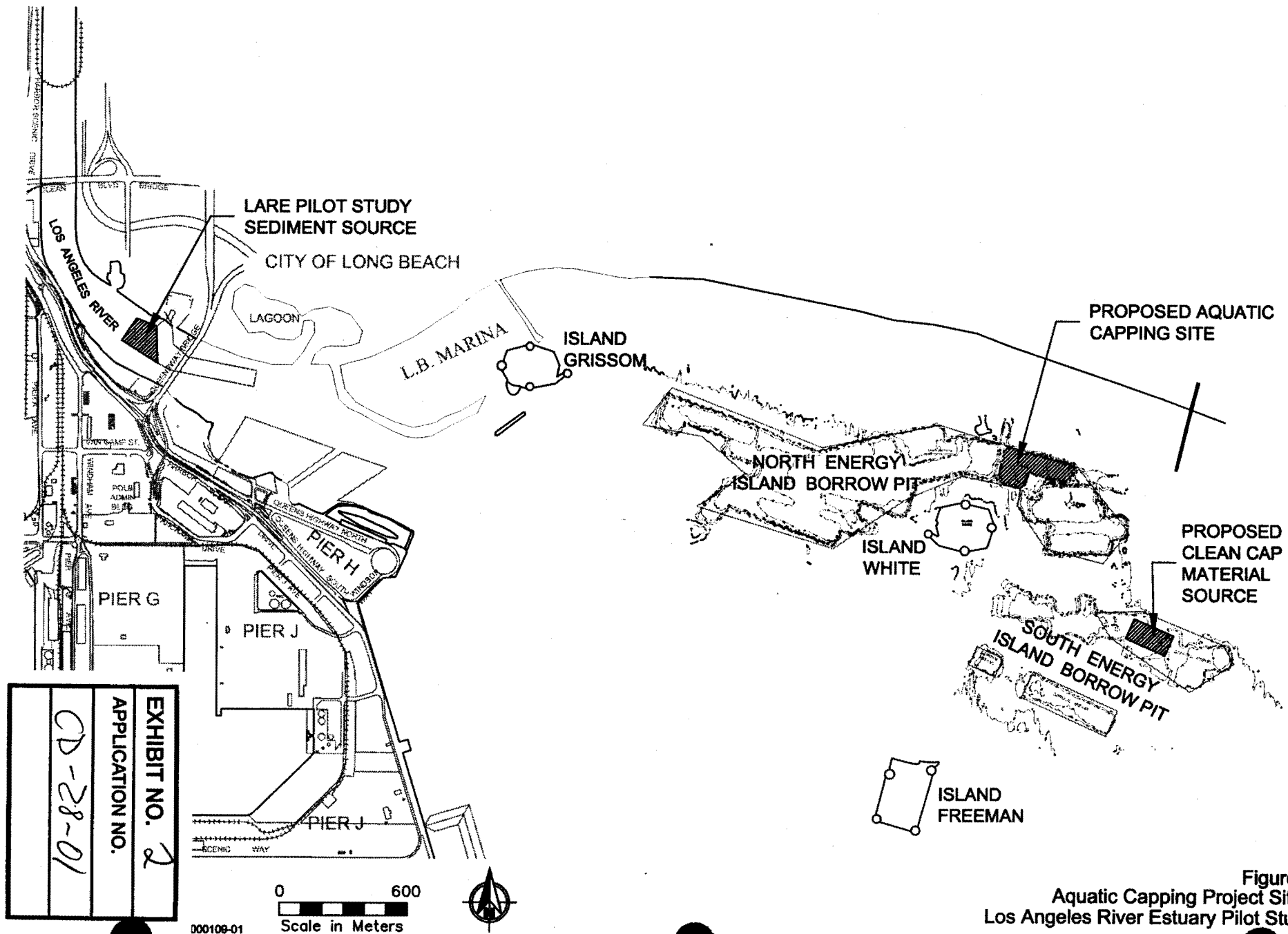
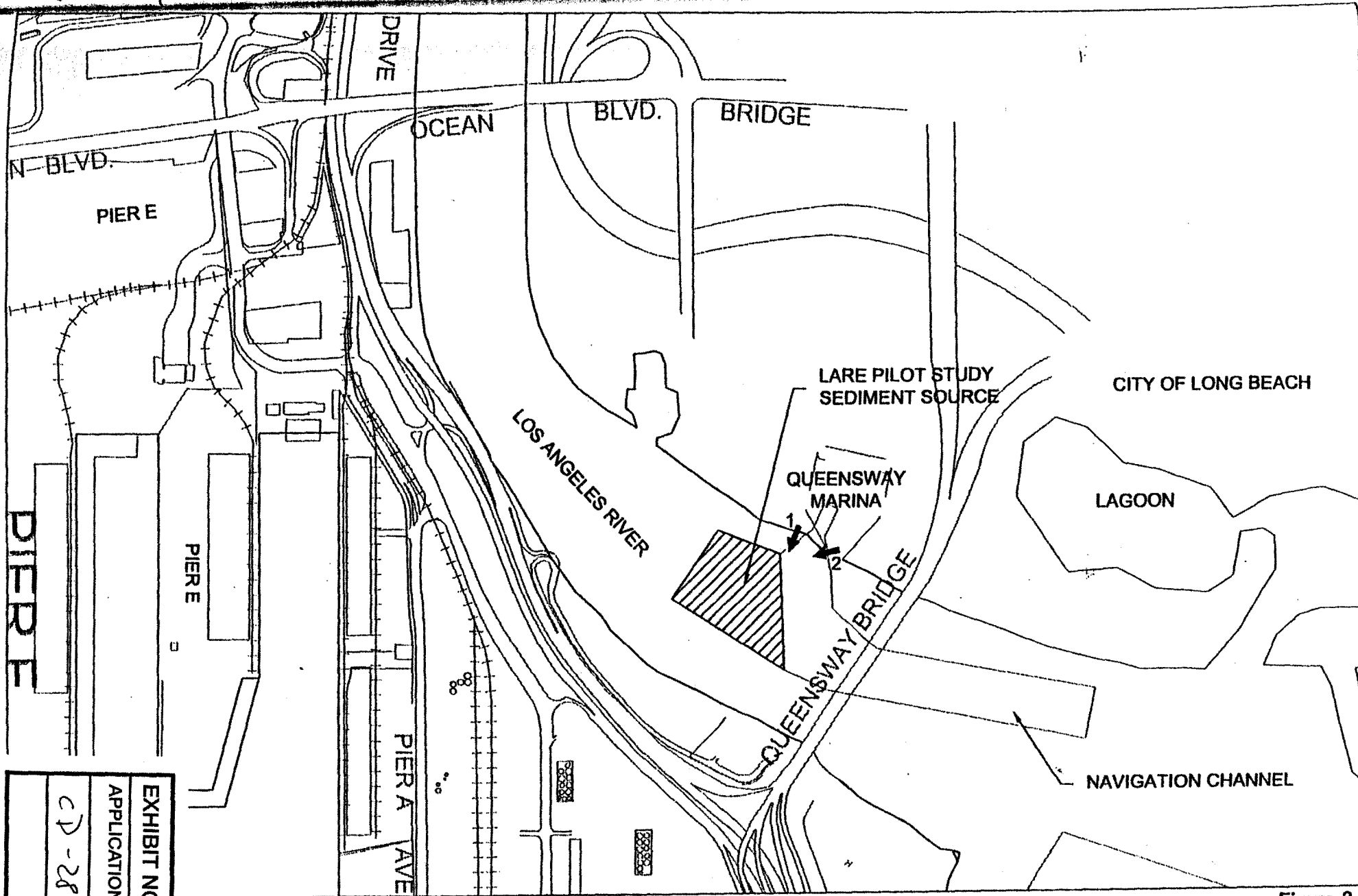


Figure 1
Aquatic Capping Project Sites
Los Angeles River Estuary Pilot Study



0 200
 Scale in Meters



Legend

← 2 Photo location and direction
 (see Figure 2)

Figure 3
 Contaminated Sediment Dredge Area
 Los Angeles River Estuary Pilot Study

EXHIBIT NO. 3

APPLICATION NO.

CD-28-01

EXHIBIT NO.	4
APPLICATION NO.	
CD-28-01	

0 50
Scale in Meters

1. VERTICAL DATUM IS MEAN LOWER LOW WATER.
2. ALL DIMENSIONS ARE IN METERS.



05/03/01 NEIB dwg

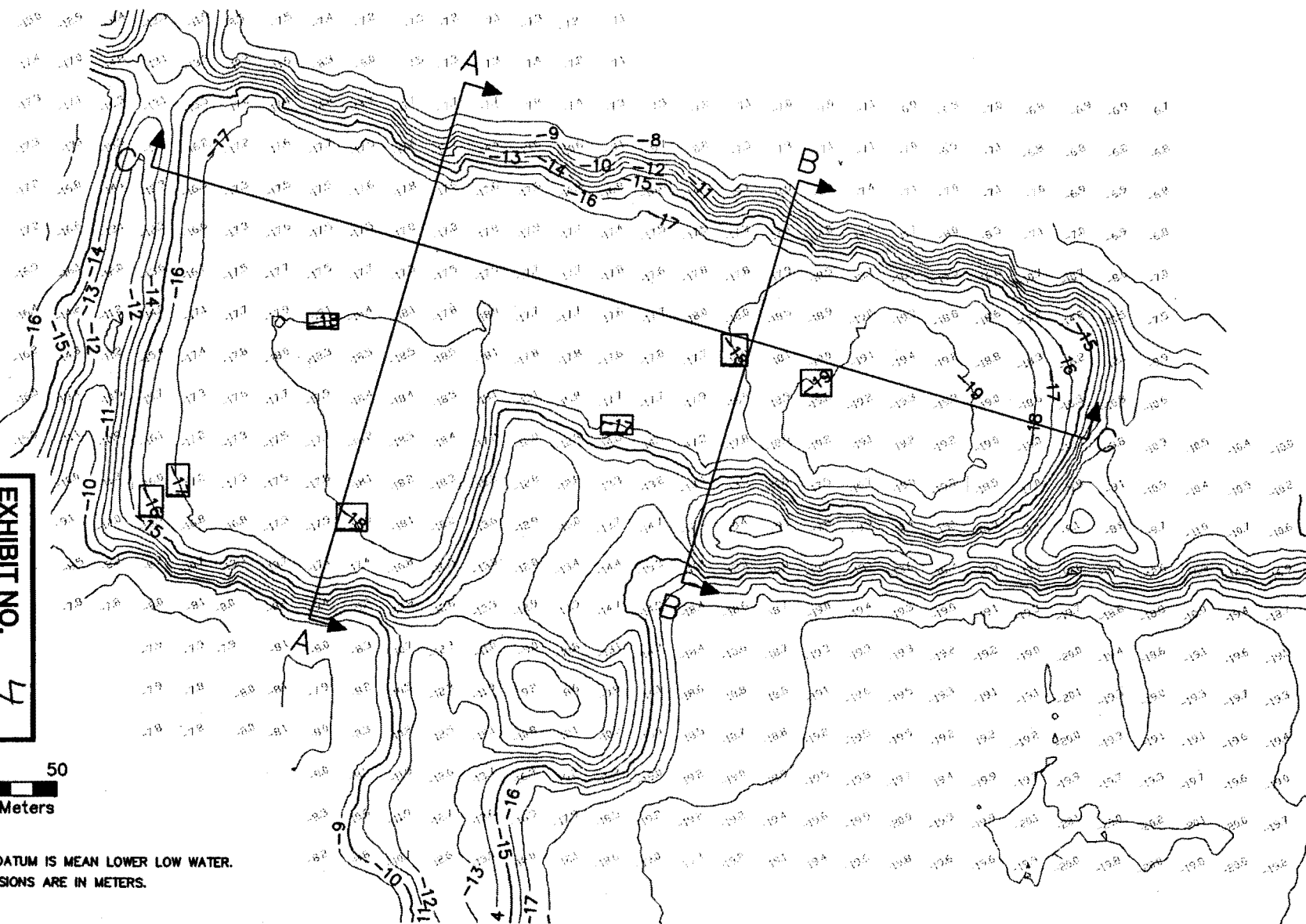
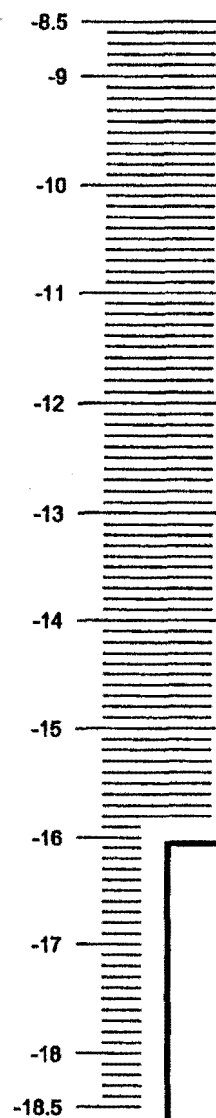


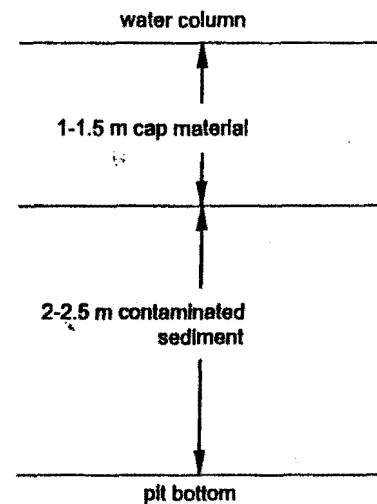
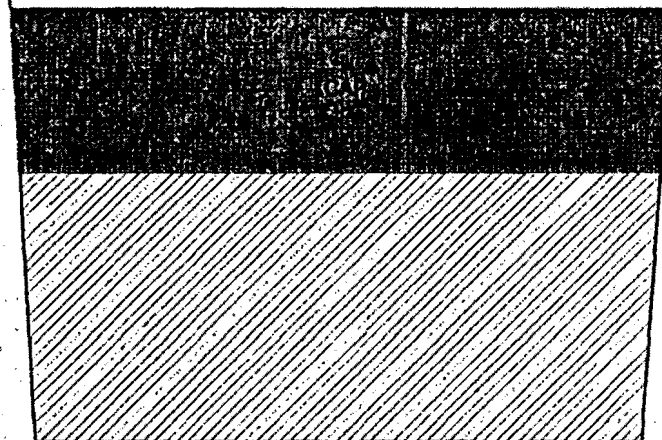
Figure 2
Proposed Aquatic Capping Project Site
Los Angeles River Estuary Pilot Study

m MLLW



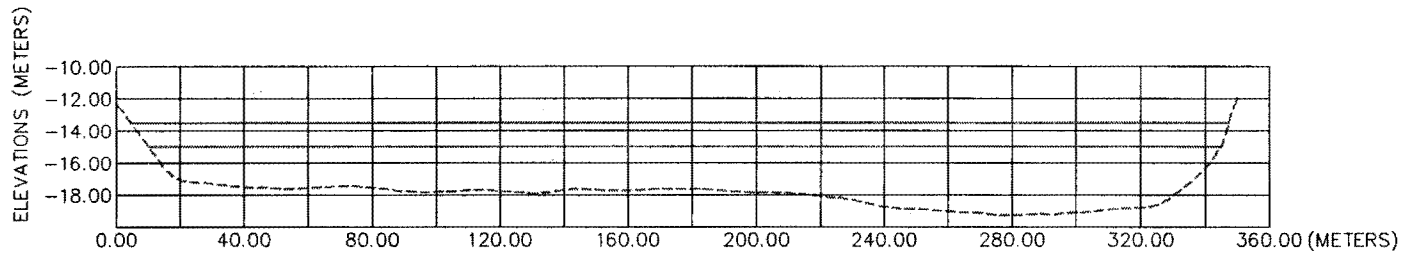
Approx. -8.5 m MLLW

EXHIBIT NO. 5
APPLICATION NO.
CD-28-01

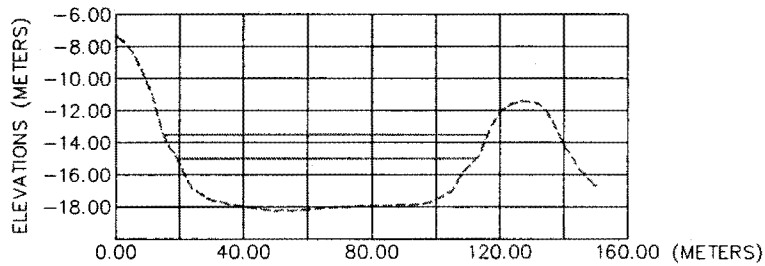


NOTE: The thickness and elevations shown are approximate. They will change somewhat during final design.

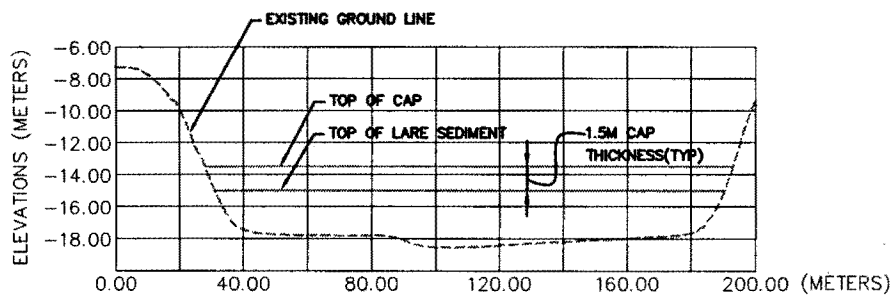
Figure 6
Typical Cross Section of
NEEDS ASSESSMENT



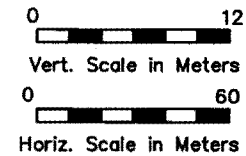
SECTION C-C



SECTION B-B



SECTION A-A



1. VERTICAL DATUM IS MEAN LOWER LOW WATER.
2. ALL DIMENSIONS ARE IN METERS.

Figure 3
Typical Cross-Section of Proposed
Aquatic Capping Project

EXHIBIT NO. 6
APPLICATION NO.
CD-28-01

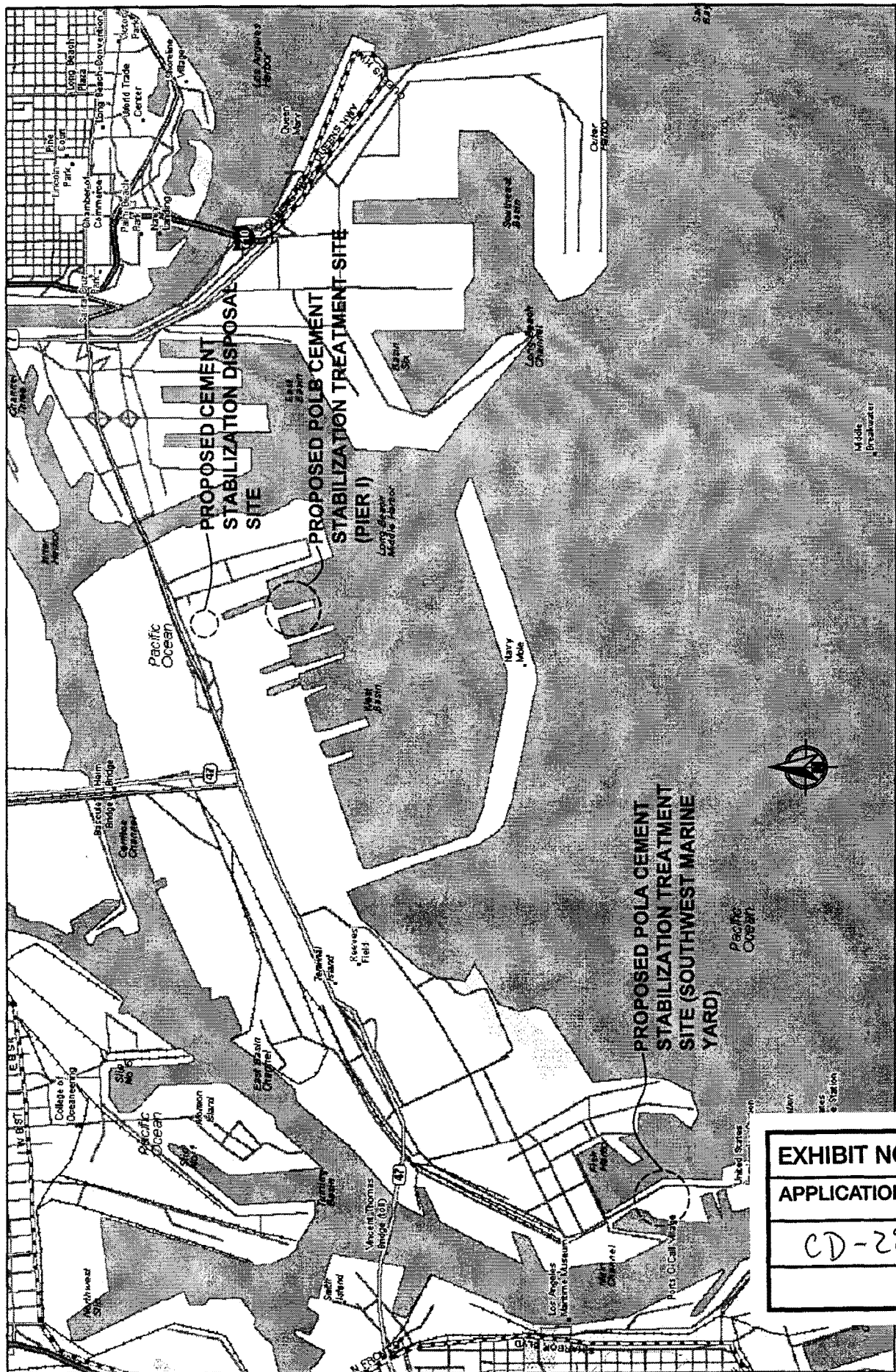
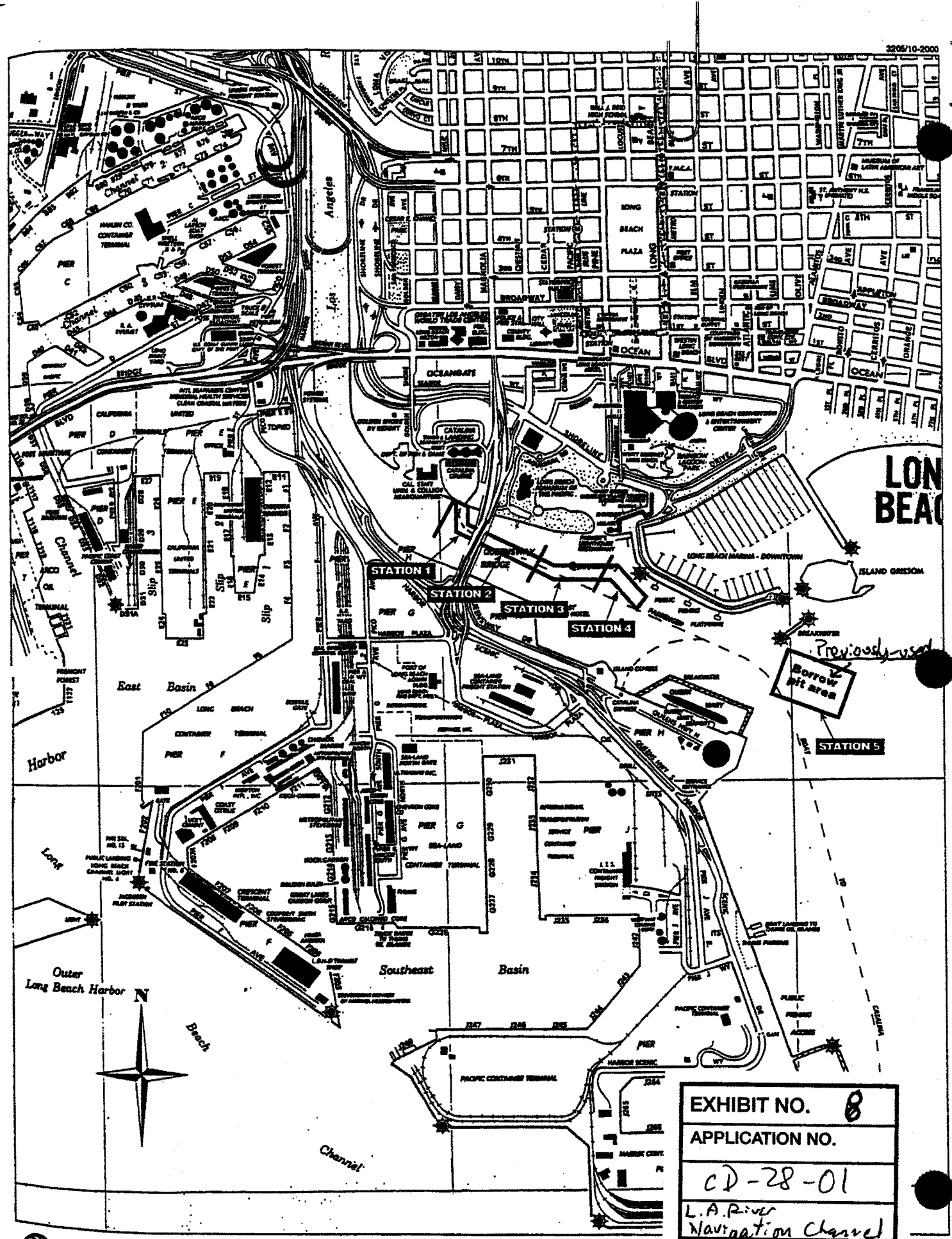


Figure 4
Cement Stabilization Site Map
Los Angeles River Estuary Pilot Study

EXHIBIT NO.	7
APPLICATION NO.	CD-28-01



Source: Automobile Club of Southern California
Travel Publication Department

Scale: 0 0.5 mile

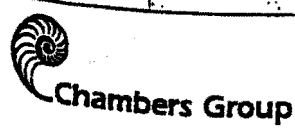


Figure 9
Station Location Map
Los Angeles River Estuary Pilot Study

1 INTRODUCTION

This document proposes a monitoring plan for the Aquatic Capping Pilot Study to be conducted by the Los Angeles District Army Corps of Engineers (COE). The monitoring plan has been refined through review by and coordination with the Contaminated Sediments Task Force (CSTF), U.S. Army Engineer and Research Center (ERDC), and the COE.

The monitoring plan has been developed to gather information sufficient to determine potential water quality impacts and the overall effectiveness, both short and long-term, of the pilot aquatic capping project. This information will be used to evaluate aquatic capping as a sediment remediation technology for management of contaminated sediments in the Los Angeles region. Because this is a pilot study, the monitoring proposed is more detailed than would be necessary to ensure compliance with applicable regulations and should not be inferred as a recommendation for monitoring for future full-scale dredge and aquatic disposal projects. Rather, gathering and evaluating this information for the pilot project should allow screening of those types of monitoring that may be unnecessary for full-scale projects.

In consultation with the ERDC and CSTF, the COE has identified the detailed objectives summarized below for the Aquatic Capping Pilot Study.

1.1 Overarching Objectives

1. Assess impacts to biota from the construction and long-term placement of contaminated sediments under an aquatic cap at NEIBP.
2. Assess the effectiveness of construction methods used to build the aquatic cap in minimizing any adverse impacts.
3. Assess effectiveness of the aquatic cap relative to meeting design goals.
4. Gather information on construction production rates/costs that might be applied to full-scale projects.

1.2 Dredging Related Objectives:

Since this is a research project, the aquatic subcommittee has decided to use this opportunity to collect more information on resuspension of contaminants during dredging of contaminated sediments, an issue the CSTF is addressing to optimize compliance monitoring and the implementation of BMPs during dredging. The data collected during this project will augment other data CSTF members are collecting on this issue.

EXHIBIT NO. 9
APPLICATION NO.
CD-28-01
Monitoring Plan

1. Objective: Support the CSTF's on-going efforts to characterize water column impacts associated with the resuspension of contaminants during dredging of contaminated sediments by collecting water column chemistry data during dredging.

Supporting data:

- Turbidity and light transmission monitoring
- Metals and organic contaminants chemistry monitoring

1.3 Construction Related Objectives

1. Objective: Evaluate the accuracy of placement of contaminated sediment in the aquatic cap site.

Supporting data:

- Bathymetry survey comparisons of surrounding area pre- and post- disposal
- SPI comparisons of surrounding area pre- and post-disposal

2. Objective: Characterize the short-term concentrations of contaminants in the water column during placement of contaminated sediments.

Supporting data:

- Water column sampling during barge drops – turbidity, light transmission, and pollutants

3. Objective: Evaluate the accuracy, coverage, and final grades of cap material placement.

Supporting data:

- Bathymetry survey comparisons of aquatic cap and surrounding area pre- and post-cap construction
- SPI comparisons of surrounding area pre- and post-cap construction

4. Objective: Evaluate cap thickness, coverage, and any mixing of contaminated and cap materials placed on the aquatic cap.

Supporting data:

- Core sampling of cap through interface

5. Objective: Characterize the short-term concentrations of contaminants in the water column during placement of the cap material.

Supporting data:

- Water column sampling during barge drops – turbidity, light transmission, and pollutants

6. Objective: Estimate the mass of contaminants lost to the water column during construction of the aquatic cap including the loss during: contaminated sediment placement, contaminated sediment settling (advection of contaminated porewater), and cap placement.

Supporting data:

- Water column sampling results (as described above)
- Sediment Profile Imaging (SPI)
- Surface sediment grab samples from surrounding areas

7. Objective: Monitor that construction is occurring in accordance with plans, and document placement locations and rates of contaminated sediment and cap material.

Supporting data:

- Tracking barge loads
- Tracking dump locations
- Progressive bathymetric surveys

8. Objective: Determine baseline surrounding area surface sediment chemistry for later determinations of any surface transport of contaminants onto the cap.

Supporting data:

- Surface sediment grab samples from surrounding areas

1.4 Long-term Monitoring Objectives

1. Objective: Assess the impact of bioturbation on cap integrity.

Supporting data:

- Diver video surveys
- Cap core chemistry samples

- Cap core observations
- Benthic community surface samples (presence of juvenile bioturbators)

2. Objective: Assess the migration of contaminants through the cap due to, physical mixing, bioturbation, and/or advection or diffusion of pore water.

Supporting data:

- Cap core chemistry samples (bulk chemistry)
- Cap core sediment grain size samples
- Cap core observations
- Benthic community surface samples (presence of juvenile bioturbators)

3. Objective: The impact of erosion or accumulation on the cap integrity.

Supporting data:

- Cap core profiles
- Regular bathymetry surveys

4. Objective: The impacts of large storm or seismic events on the cap integrity.

Supporting data:

- Additional bathymetry surveys after events

5. Objective: Differentiate between surface contaminants from the water column, rivers, or surrounding sediments and migration from beneath the cap.

Supporting data:

- Cap core chemistry samples
- Surface chemistry sediment samples

6. Objective: Track recolonization of cap by organisms.

Supporting data:

- Benthic community surface samples (on cap vs. surrounding area)

The monitoring plan has been developed to evaluate these short and long-term detailed objectives, and accordingly, has been broken down into three phases of monitoring:

- Prior to (baseline) and during construction (from just prior to initiation of dredging to completion of cap placement)
- Immediately after construction (within 30 days of cap completion)
- Long-term after construction (for 10 years).

While evaluation of long term effectiveness is an objective of the e Aquatic Capping Pilot Study, the current COE funding for the project expires at the end of fiscal year 2001. CSTF has funding for the long term monitoring of the project that extends through 2003. The COE and CSTF are working together to secure funding to conduct extended monitoring beyond the currently identified funding periods.

After a brief description of the Aquatic Capping Pilot Study, the following sections of this plan describe each of the three phases of monitoring in detail. A final section describes how data evaluation procedures and project performance criteria will be developed by the CSTF.

Table 1. Monitoring Plan Summary

Monitoring Type	No. of Stations	Locations	Parameters	Schedule	Methods
Construction and Baseline					
Water Column Monitoring	16*	Two up current and 3-4 down current; 3 sampling depths except up current L.A. River	Light transmission, DO, pH, salinity, temperature, TSS, and (occasional) metals/ organics	Twice daily in first week and three times per week thereafter for each of the four operations**	Field light transmission, DO, pH, salinity, temperature; lab analysis for other parameters; dissolved metals and organics
Bathymetry	Transects	NEIBP and fringe area; dredge quantity verification at SEIBP and L.A. River	Bathymetry in MLLW	Once pre-construction; every other day for cont. sediment placement; once during consolidation; and every other day for cap placement	COE Class 1 level survey
Sediment Profile Imaging	31	Fringe area NEIBP radial transects	Profile photographs	One week before construction; and immediately after LAR sediment placement	Vessel deployed camera; baseline information
Immediate Post Construction					
Bathymetry	Transects	Cap and fringe area	Bathymetry in MLLW	One week after construction	COE Class 1 level survey
Sediment Profile Imaging	31	Fringe area NEIBP radial transects	Profile photographs	One week after construction	Vessel deployed camera
Cap Coring	5+4	20 cm sections of cap layer, 4 other sampling depth intervals	Layer identification and grain size in 9 cores plus chemistry in 5 of 9 cores	One week after construction	Vibracore through entire x-section to pit bottom; samples above and below each interface
Surface Sediment Chemistry	8	3 at cap coring stations; 5 in fringe area	Same as coring	One week after construction	vanVeen samples of biologically active zone (top 10 cm); provide baseline of fringe area chemistry
Long Term					
Bathymetry	Transects	Cap and fringe area	Bathymetry in MLLW	Annually in June for 3 years; after 25-year storms and severe seismic	COE Class 1 level survey
Cap Coring/Surface Sediment	5	Cap coring stations; 11 core depths and 1 surface sample	Layer identification and grain size in 9 cores plus chemistry in 5 of 9 cores	Annually in June for 3 years	Vibracore through entire x-section to pit bottom; samples above and below each interface; ghost shrimp observations
Benthic Community Sampling	5+3	Cap (5) and reference area (3)	Infauna to lowest practical taxonomic level	Annually in June for 3 years	1 vanVeen replicate per station

* See Figure 6.

** Applies to light transmission, DO, pH, salinity, and temperature only; other parameters less often (see text).

TOC - Total Organic Carbon TSS - Total Suspended Solids DO - Dissolved oxygen MLLW - Mean Lower Low Water



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

May 4, 2001

REPLY TO
ATTENTION OF:
Office of the Chief
Navigation Section

OPTIONAL FORM 98 (7-90)

FAX TRANSMITTAL

of pages -

To	MARK DELAPLAIN	From	
Dept./Agency		Phone #	
Fax #		Fax #	415 904 5400
NSN 7540-01-317-7388		5099-101 GENERAL SERVICES ADMINISTRATION	

Mr. Peter Douglas
Executive Director
California Coastal Commission
45 Freemont Street, Suite 2000
San Francisco, California 94105-2219

Dear Mr. Douglas:

In the absence of Colonel John Carroll, District Engineer, I am sending this letter to clarify the US Army Corps of Engineers' position regarding long term monitoring of the Confined Aquatic Disposal Site. The Corps is planning this project in coordination with the Los Angeles Region's Contaminated Sediment Task Force (CSTF), and the support of local sponsors to develop a Regional Dredged Material Management Plan. This is a pilot project intended to assess the feasibility of using the North Energy Island Borrow Pit as a Regional Disposal Site for low level contaminated sediments dredged from the Los Angeles region.

The Corps agrees that once sediments have been placed at a disposal site it is important that a monitoring plan be fully implemented to assure protection of the environment. The long term monitoring that is being proposed will determine the effectiveness of the cap. The Corps believes that all parties who will utilize and benefit from the establishment of a Regional Disposal Site should share the responsibility for long term monitoring of the site; we will not neglect our responsibility as one of those parties. The Corps is restricted in making a "guarantee" of the appropriation of funds for monitoring over the long term. However, we will request funds for long term monitoring of the project through our Operation and Maintenance (O&M) program and place a high priority on the request.

The Corps of Engineers receives a yearly allocation from Congress as part of the O&M Appropriation. These funds are requested two years in advance and are "no year" funds, which means they do not "expire" at the end of the fiscal year of allocation. Thus it is permitted by statute to "carry over" one fiscal year's funds into another. However, it is Corps' national policy, established by the Chief of Engineers, to not carry funds over from one fiscal year to another; all funds that cannot be expended in a fiscal year are to be released for expenditure by another District. Thus it is not permitted to carry funds for any purpose into succeeding fiscal years.

EXHIBIT NO. 10

APPLICATION NO.

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-2-

We can budget future years' funding for purpose of monitoring using the standard budgeting process. Funds for monitoring will have to compete with funds requested for all other O&M purposes of course. However, the District's prioritization of work packages within the District's budget request is completely under our control. Thus, a request for monitoring funds will be given the highest priority possible to assure funding for that fiscal year. If circumstances are such that monitoring funds are not allocated—for whatever reasons—it is possible to re-program funds during the fiscal year to cover this need. Doing so, of course, will take funds away from some other work item, but we have latitude in making such decisions internally.

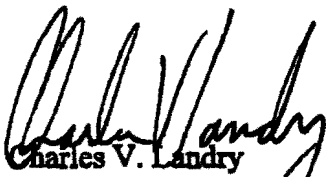
Because our funding is dependent on the will of Congress, it is not possible for us to "guarantee" funding in any future fiscal year. However, we are given sufficient discretionary authorities—before and during any fiscal year—to give us a high level of confidence that future years' monitoring will be funded from the O&M appropriation.

In the event of an emergency event, such as a significant seismic event or extreme storm condition, funds may be reprogrammed to address all areas of concern. An example of this is after the "El Nino" event reprioritizing was required to address wave damage at various harbors and additional funding was allocated.

I trust that this assurance will help allay the Coastal Commission's concern regarding the Corps' commitment to long term monitoring at the Confined Aquatic Disposal Site. It will receive a priority ranking in the O&M appropriation.

If you have any questions or would like to discuss this issue further please contact me at (213) 425-3965 or your staff can contact Jim Fields of my staff at (213) 452-3403.

Sincerely,


Charles V. Landry
Lieutenant Colonel,
Corps of Engineers
Deputy District Engineer



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Santa Monica CA 90404

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fax 310 453 7927

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www.healthebay.org

Item W 12d

May 7, 2001

Chairwoman Wan and Commissioners
California Coastal Commission

Sent via Fax to Jack Gregg

**RE: Item W 12d - Consistency Determination (CD-28-1) for Army Corps of
Engineers Pilot Project for the Los Angeles River Estuary**

Dear Chairwoman Wan and Commissioners:

Heal the Bay is a nonprofit profit group with over 10,000 members dedicated to making the waters of the Los Angeles area cleaner and safer for marine life and people. For the past 15 years, we have worked on contaminated sediments issues related to various Army Corp. of Engineers (ACE) and Port projects, and has been an active member of the Los Angeles Region Contaminated Sediment Task Force (CSTF) since it's conception.

As a CSTF member, we support the concept of completing pilot projects for filling in data gaps identified as part of the regional contaminated sediment planning process. As you may gather, Heal the Bay is especially supportive of the ACE's research efforts to characterize beneficial reuse options for the regional contaminated sediments management plan. However, Heal the Bay has extensive comments and concerns regarding the proposed project and agree with the CCC staff's determination that the Environmental Assessment (EA) for the project, as submitted to the CCC, was insufficient because much of the key data needed to assessment environmental impacts were not included in the documents. (Our letter regarding the EA was attached to the CCC staff's report.) We also have extensive comments and concerns regarding the short-term and long-term monitoring programs. Our letter to the ACE regarding the monitoring components for the proposed CAD pilot project is attached.

Over the past several months, Heal the Bay has attended many meetings regarding the proposed pilot projects for the LA River Estuary. The ACE and their consultants have been responsive to our comments. However, at this time, two days before the CCC meeting, we have just received a written response to our comments on the EA and the many revisions to the monitoring program have not been completed. Thus, Heal the Bay and the CSTF have not had an opportunity to review the multitude of revisions that will be incorporated into the monitoring program, which is the most critical part of this project.

EXHIBIT NO. 11
APPLICATION NO.
CD-28-01

Item W 12d

Another major concern we have about this project is the last minute submission of a substantial amount of additional information. (A 15-page response to comments on the EA received on Friday, three working days before the hearing, and the expected submittal of the revised monitoring program the afternoon before the hearing.) Last minute submission of key project information short-circuits the public review process, making it very difficult for the general public to respond. Heal the Bay is concerned about the ACE's repeated approach of allowing funding schedules to take precedent over the completion of sufficient environmental assessments and pushing for hasty regulatory review and approval of projects based on the threat of losing funding.

Despite these concerns, Heal the Bay is not opposing to the project because it will provide information will assist the CSTF in developing an environmentally sound plan for the disposal of contaminated sediments. It is important that this project move forward because the concrete stabilization pilot project is linked to the CAD project.

Based on the above considerations, and particularly since this is a research project that will support a long-term strategy for contaminant sediment management, Heal the Bay does not oppose a consistency determination if the following concerns can be addressed:

1. Critical revisions to the short-term and long-term monitoring activities were not completed in time for adequate review. We suggest the Commission direct the ACE to revise the short-term and long-term monitoring programs and resubmit these to the CSTF for review and comment.

The details of the monitoring programs are critical to the success of this project since it's a research pilot project aimed at answering key questions regarding the environmental impacts and construction issues related to CAD construction. Heal the Bay has completed a thorough review of the monitoring and the ACE has held at least two meetings regarding the plan. Many changes and suggestions arose out of those meetings. Because there is a multitude of revisions necessary, we believe a second review of the revised plans is imperative to ensure the plan will provide the CSTF with adequate data to assess the project.

2. A final product of the pilot project should be an estimate of the total amount of contaminants lost to the aquatic environment during the CAD construction, including a better estimate of the amount of contaminants lost during the contaminated sediment consolidation period.

There is a period of time during the CAD construction when the contaminated sediments consolidate. This period of time is estimated to be 45 days. During this time, porewater is "squeezed" out of the contaminated sediments as they settle. After the consolidation period, the cap material is placed over the contaminated sediments. The consolidation period is necessary to ensure the contaminated sediments can support the weight of the cap material.

Item W 12d

According to the draft letter from the ACE to the CCC dated May 4th, the ACE estimates the concentrations in the porewater for zinc and chlordane will be 45 times and 138 times the concentrations determined to be toxic to marine life per the California Toxic Rule¹. They also estimate the amount of water released at these concentrations will be over 2.5 million liters, which equals a discharge rate of over 15,000 gallons per day.

During a phone call on May 7th, the ACE has stated their estimates are conservative and that actual concentrations could be much lower. Heal the Bay believes the pilot project should provide a better estimate of this water quality impact through either field monitoring during consolidation, laboratory testing, or improved estimates through more sophisticated modeling.

In addition, the ACE consultants stated the amount of contaminants released during consolidation would be much less than the amount released during the process of dredging and then dropping the sediments into the pit. Heal the Bay finds this statement very disconcerting since the amount of contaminants released during consolidation appears to be significant. Therefore, we strongly believe a final product of the pilot project should include an estimate of the mass of contaminants lost during the CAD disposal.

3. The ACE's commitment to long-term monitoring of the CAD site is a good start, but incomplete. The commitment must be part CCC's consistency determination.

Clearly, without a well-designed and executed long-term monitoring program, many of the CSTF's questions regarding the effectiveness of CAD for contaminated sediment disposal will remain unanswered. More importantly, adequate long-term monitoring is critical to ensure the project does not result in impacts to the aquatic environment due to loss of contaminants.

Heal the Bay has reviewed the ACE's written commitment. We believe the following items should be included in a commitment from the ACE:

1. A commitment to seek *full* funding of the monitoring deemed necessary by the CSTF or applicable agencies. The commitment letter does not explicitly state the full amount of funding necessary will be sought.
2. A commitment to meet with the CSTF and/or other appropriate agencies to review the monitoring data as it is collected and to refine the long-term monitoring as necessary.

¹ California Toxic Rule chronic toxicity concentrations for saltwater aquatic life are 81 ppb dissolved zinc and .004 ppb chlordane. The chronic toxicity levels are average pollution concentrations which will produce water quality generally suited to maintenance of aquatic life and designated uses (40 CFR part 131).

Item W 12d

3. A commitment to maintain the integrity of the CAD site and to restore integrity or remove the CAD in the event data indicate the CAD is not effectively isolating the contaminants from the site.
4. Contingency steps the ACE will take to obtain the funding from another source or to solicit other agencies to complete the monitoring in the event the funding is not received for a given year of monitoring. Also, the CSTF, the CCC, and the other appropriate agencies should be notified if full funding is not received.
5. Any commitments should be for the life of the CAD. This does not imply routine monitoring will continue indefinitely. However, in the future, if the CSTF or resource agencies fee; monitoring should continue or resume, the ACE should be committed to seek funds for this monitoring. In addition, the commitment to conduct monitoring after events which could comprise the integrity of the cap such as large storm events or seismic events must necessarily be maintained for the life of the CAD.

Finally, and most importantly, Heal the Bay's lack of opposition to a pilot CAD site should not be construed as support for a regional CAD site. Heal the Bay believes the proposed pilot project will provide data on the environmental impacts associated with a single CAD site, but many technical, managerial, and societal concerns regarding a regional CAD site will not be addressed by this pilot project.

Sincerely,



Mitzy Taggart
Staff Scientist



Mark Gold, D. Env. I
Executive Director