STATE OF CALIFORNIA -- THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

W 8a

ADDENDUM TO COMMISSION PACKET

FOR

ENERGY, OCEAN RESOURCES AND FEDERAL CONSISTENCY DIVISION

FOR Wednesday, August 6, 2008

This addendum contains an update to the Staff Recommendation for Item No. W 8a

CD-041-08, U.S. Army Corps of Engineers, Maintenance Dredging, Separation, Treatment, and Disposal, Marina del Rey Entrance Channel/Dockweiler State Beach, Marina del Rey, Los Angeles County

CALIFORNIA COASTAL COMMISSION
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W8a

Prepared August 4, 2008 (for August 6, 2008 hearing)

To: Coastal Commissioners and Interested Persons

From: Mark Delaplaine, Manager, Energy, Ocean Resources and Federal Consistency Division

Subject: STAFF REPORT ADDENDUM for Item F 19a

Consistency Determination CD-041-08, U.S. Army Corps of Engineers, Maintenance Dredging, Separation, Treatment, and Disposal, Marina del Rey Entrance Channel/Dockweiler State Beach, Marina del Rey, Los Angeles County

The Commission staff proposes clarifications to reflect the agreed upon consultation, delivery of test results, and agency review processes for determining the suitability of the decant water for ocean discharge and suitability of the sand for beach placement. The staff also proposes incorporating excerpts and an exhibit from a recent Department of Fish and Game monitoring report for western snowy plovers at Dockweiler Beach, with clarification that the Corps will not be placing the sand in the area where snowy plovers have been sighted.

Also attached is a comment letter from Heal the Bay.

[Proposed new language is shown in underline text; language to be deleted is shown in ~~strikeout~~ text.]

Water Quality and Marine Resources Findings, page 13, third sentence in last paragraph, make the following changes:

After discussions with Commission staff, the Corps agreed to modify the proposed project in several ways to ensure further protection of water quality, marine resources, and public recreation. The Corps agreed that prior to commencement of the project, it will consult with the members of the CSTF on the aforementioned sand separation process procedures. ~~The Corps will also obtain the approval of the Commission staff and~~

~~USEPA and California RWQCB staff prior to the initial discharge of decant water to the ocean and placement of separated sands on the beach to ensure that these materials are suitable for discharge and placement.~~ Within 36 hours after the start of decant water discharge to the ocean, the Corps will deliver to Commission, USEPA, and California RWQCB staffs the water quality test results of water samples taken from the initial water discharge from the sand separation process. Based on these test results, the Corps will obtain the approval of the aforementioned agency staffs in order to continue the ocean discharge of the decant water from the sand separation process. The Corps will also obtain the approval of the Commission staff, and USEPA and California RWQCB staffs prior to placement of separated sands on the beach, to ensure that these sands are suitable for beach nourishment. In addition, because the Corps will use a chemical flocculant in the sand separation process, it has committed to: (1) obtaining approval, prior to the start of dredging, from Commission staff and USEPA and RWQCB staff for the type of flocculant (or other chemical treatment or additive) to be used in the process; and (2) adding to the sand separation process further testing and monitoring of the decant water prior to its discharge to ocean waters to ensure that the chemically-treated discharged water is non-toxic. The Corps also will ensure that the chemical and physical quality of the separated sand will be compared to human health screening levels that are appropriate for the conditions of this project (e.g. screening levels based on the USEPA's Preliminary Remediation Goals) and to existing Dockweiler Beach sediment quality to ensure that sand placed on the beach is safe for placement on the beach. Finally, should approval for initial water discharge or sand placement not be obtained from the Commission staff and USEPA and RWQCB staff, the Corps will return to the Commission prior to re-starting project dredging to obtain concurrence with alternate procedures to handle and dispose of decant water and separated sands.

Environmentally Sensitive Habitat/Endangered Species Findings, pages 14-15, starting with the last paragraph on p. 14, make the following changes:

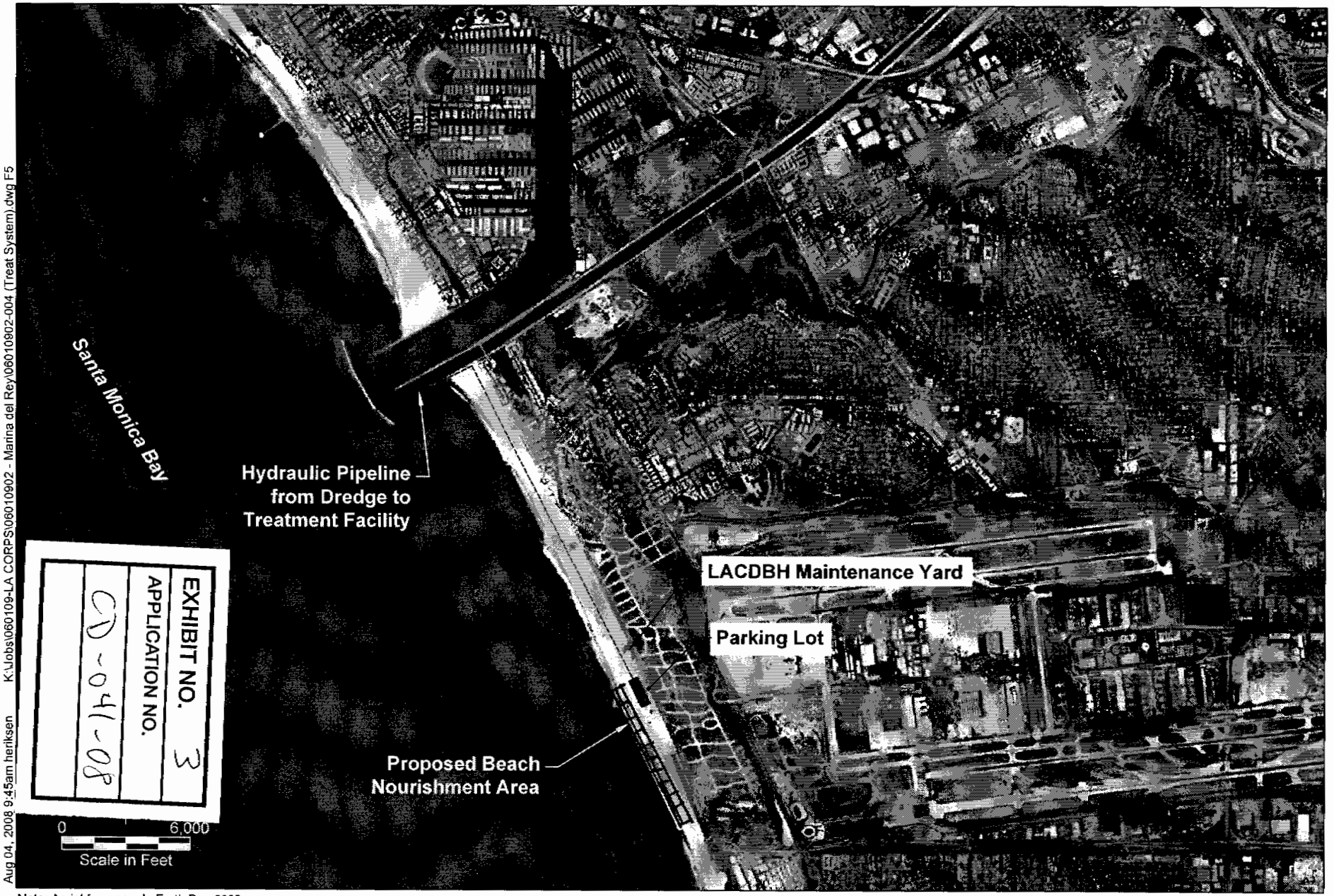
The Corps concluded in its consistency determination that because the proposed project will occur between September 15, 2008, and March 15, 2009, there will be no adverse effect to these species as a result of the dredging, treatment, and disposal of dredged sediments from the Marina del Rey Harbor north entrance channel. Because dredging will not occur during the spring and summer least tern nesting season, the proposed dredging and placement of dredged material will not affect least tern nesting, foraging, or roosting behavior or habitat. ~~Due to the level of high recreational use and the intense mechanical beach cleaning at Dockweiler State Beach, this sandy beach habitat does not meet the primary constituent elements for snowy plover nesting or foraging and the project will therefore not affect the snowy plover.~~ Although the project would not occur during the snowy plover nesting season, wintering snowy plovers have been documented at Dockweiler State Beach north, as shown in a recent Department of Fish and Game monitoring report for western snowy plovers (The Western Snowy Plover in Los Angeles County, CA Winter-Spring 2007, October 2007) (Exhibit 11). The Corps has clarified that that its proposed disposal location is south of the area used by plovers and thus that

the project will avoid effects on wintering plovers. The U.S. Fish and Wildlife Service agrees that plover effects will be avoided. The noise and activity of dredging could temporarily displace brown pelicans that roost on the nearby breakwater and jetties. Brown pelicans are generally tolerant of such human activities near their daytime roosts; however, there is increased sensitivity at nighttime roosts. Unlike the 2007 maintenance dredging project which operated 24 hours/day and required brown pelican protection measures, the proposed project will not operate at night and will therefore not adversely affect the nighttime roosts of brown pelicans. Turbidity from dredging could force pelicans to forage away from the immediate vicinity of the dredge, although this 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 in the nearshore environment to forage and would not be affected by the dredging activities.

Exhibits - (1) Replace Exhibit 3 with new Exhibit 3 showing disposal south of the parking lot.

(2) Add a new exhibit (Exhibit 11), The Western Snowy Plover in Los Angeles County, CA Winter-Spring 2007, October 2007, prepared for the Dept. of Fish and Game, by SWCA Consultants, Los Angeles Audubon, and Santa Monica Bay Audubon Society, pp. 16-17.

Attachment - Heal the Bay letter, dated July 31, 2008.



Aug 04, 2008 9:45am heriksen K:\Jobs\060109-LA CORPS\06010902 - Marina del Rey\06010902-004 (Treat System).dwg F5

Note: Aerial from google Earth Pro, 2008.

Dredge Barge

Treatment Plant

ANCHOR ENVIRONMENTAL, L.L.C.

Figure 5
Proposed Project Activities
Supplemental Environmental Assessment
Maintenance Dredging at Marina del Rey Harbor

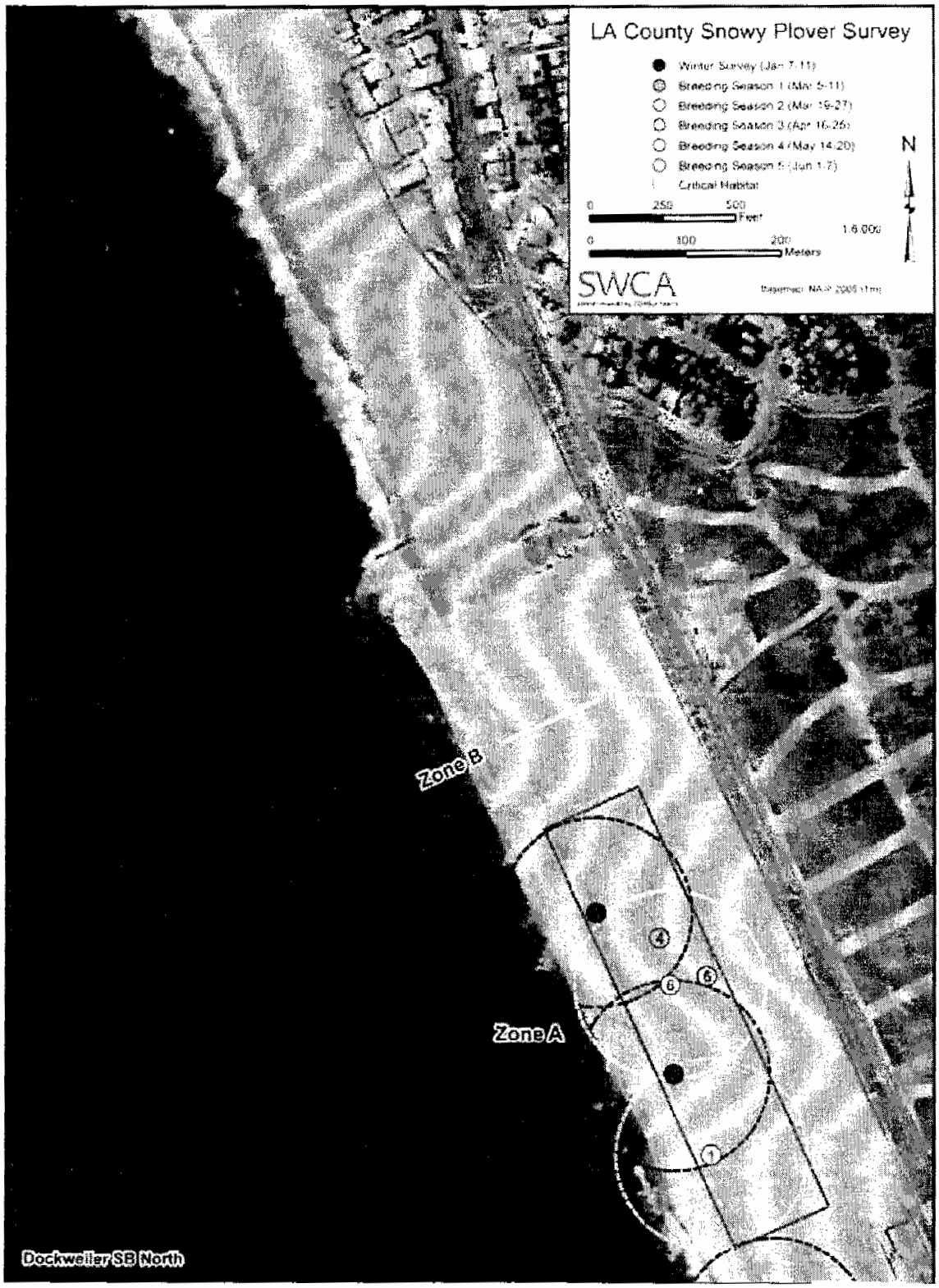


Figure 6. Dockweiler State Beach North

EXHIBIT NO. 11
APPLICATION NO.
CD-041-08

Beach 19: Dockweiler State Beach North (Ballona Creek to Vista Del Mar Park, 1.4 miles)

Surveyors detected Snowy Plovers at Dockweiler State Beach North (Figure 6) during the winter survey and the first two breeding season surveys. All sightings were in the same general vicinity, between a point directly seaward of Sandpiper Street and Lifeguard Tower 47. During the winter survey, five Snowy Plovers were observed roosting on the hard wet sand at mid-beach. During the first breeding season survey, nine Snowy Plovers were observed roosting on dry soft sand near the wrackline. During the second breeding season survey, six Snowy Plovers were seen roosting and preening at mid-beach.

Portions of Dockweiler State Beach North are within Critical Habitat Subunit 21B, which is designated in green shading on the figure (USFWS 2005). Dockweiler Beach North is characterized by linear sandy beach habitat. Surveyors observed high levels of human activity at Beach 19 including walkers, joggers, anglers, bikers, lifeguard vehicles, heavy equipment, and regular beach grooming. Potential Snowy Plover predators included off-leash dogs, red-tailed hawks, and numerous American Crows.

Combined across Dockweiler State Beach, we observed 13 Snowy Plovers during the winter survey, which represents a 66% decline in the population of Snowy Plovers from the three previous winter window surveys when 25-34 individuals were counted in this same area.

Recommendations. Potential threats to wintering Snowy Plovers at Dockweiler State Beach North include vehicle strikes, beach grooming, off-leash dogs, and human-influenced predators. If nesting occurred, nesting Snowy Plovers would also face threats from trampling of nests by beach goers, and predation by off-leash dogs and local wildlife attracted to trash such as feral cats, raccoons, American Crows, and Common Ravens. Dockweiler State Beach North is below the flight pattern for Los Angeles International Airport and received less use by the public than similar beaches north and south. A relatively small portion of the beach was used by Snowy Plovers. This beach is a good candidate for the use of enclosures with minimal impact to public use. We recommend that winter fencing be installed as soon as practicable following the Labor Day Holiday around Zone A and be left in place until March 15, or two weeks after the last wintering Snowy Plover has departed. If Snowy Plovers remain after March 15, this may be converted to breeding season fencing. Additionally, we recommend an increased enforcement of dog-related regulations, and a vehicle non-emergency speed limit within Zones A and B. A volunteer monitoring program, and if needed, predator control measures should be implemented as well.

Heal the Bay

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July 31, 2008

Chairperson Kruer and Commissioners

California Coastal Commission
45 Fremont Street
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San Francisco, CA 94105-2219

Sent via Email [lsimon@coastal.ca.gov]

Re: Comments on Consistency Determination No. CD-041-08 for the *Entrance Channel Maintenance Dredging of Contaminated Sediments at Marina del Rey Harbor*

Dear Chairperson Kruer and Commissioners:

On behalf of Heal the Bay, we submit the following comments on the Consistency Determination for the *Entrance Channel Maintenance Dredging of Contaminated Sediments at Marina del Rey Harbor* ("Project"). We appreciate the opportunity to provide these comments.

We would first like to recognize the Army Corps of Engineers for their efforts in this project, which is a major step toward achieving the Contaminated Sediment Task Force's long-stated goal of 100% beneficial reuse of dredged sediment. We hope to see similar sediment treatment components incorporated into future dredging projects.

However after examining the Draft Supplemental Environmental Assessment ("SEA") and Coastal Commission's staff recommendations, we would like to make the following recommendations to significantly decrease the environmental impact of this project.

ACOE should propose an alternative disposal plan for treated sediment and should specify what screening criteria will be used.

In the Draft SEA, there was no mention of what will be done with treated sand if it does not meet the screening criteria after testing. The ACOE must develop an alternate disposal plan in case health standards are not met. Beach disposal must not be an option in this case. Also, it is unclear what screening criteria are being used to ensure that the treated sediment is acceptable for beach replenishment. These screening values must be protective of human and aquatic health. Thus, the most conservative screening values should be used; we recommend that ERL values be used.

ACOE should minimize human contact with disposed sediment

While Heal the Bay strongly supports beach replenishment with clean sediment from dredging projects, a conservative approach to this type of sediment reuse is warranted given the potentially

significant impacts on both human and aquatic health. We suggest the ACOE take measures to minimize public exposure to the treated sediment due to the potential direct human contact with sediment placed directly on the beach and in the surf zone, and to the uncertainty of the full effectiveness of the sediment treatment. If an economically feasible alternative such as off-shore placement cannot be found, we recommend that the ACOE partition the area of treated sediment disposal to prevent the public from entering the disposal area until adequate drying and mixing with existing beach sands has occurred. Simple measures could be used to fence off the area, such as placement of cones or sawhorses with yellow tape.

ACOE should develop monitoring plans for dredging activities, the contaminated disposal area, and the beach replenishment area.

The SEA does not outline any monitoring of the dredging activity or the replenishment area. The ACOE should monitor impacts of this project to better understand its potential environmental impacts. In accordance with the Los Angeles Regional Dredge Materials Management Plan, ACOE should identify monitoring to take place during the dredging activities, sediment characteristics (including both turbidity and chemical concentrations) that will automatically trigger implementation of enhanced BMPs, and specific enhanced BMPs that can be implemented when a water quality problem is detected. Such monitoring is typical for contaminated sediment dredging projects. In addition, the ACOE should frequently inspect dredging activities to insure the dredge contractor is implementing rules and methods outlined in the CSTF LTMS (2005) BMP toolbox for dredging activities.

Monitoring requirements should also be developed for the proposed beach replenishment area. Elevated bacteria levels in nearby waters could result from the placement of sand with high organic material on the beach. This could be in conflict with the Santa Monica Bay Beaches Bacteria TMDL. In addition, negative aesthetic impacts, such as undesirable odors, may result and should be monitored. All monitoring plans should be provided to members of the CSTF for review, and results should be made accessible to the public.

Again, we commend the ACOE for pursuing treatment and beneficial reuse of the sediments. However, we feel that the items discussed above must be addressed to ensure public safety and the health of marine life. If you have any questions or would like to discuss any of these comments, please feel free to contact us at (310) 451-1500.

Sincerely,

W. Susie Santilena
Water Quality Scientist

Kirsten James
Water Quality Director

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W 8a

STAFF RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-041-08
Staff:	LS-SF
File Date:	7/1/2008
60th Day:	8/30/2008
75th Day:	9/14/2008
Commission Meeting:	8/6/2008

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

PROJECT LOCATION: Marina del Rey Harbor and Dockweiler State Beach, Los Angeles County (**Exhibits 1-3**)

PROJECT DESCRIPTION: Maintenance dredging of 68,000 cubic yards of contaminated sediments in the Marina del Rey Harbor south entrance channel, sand separation of dredged sediments, placement of clean sands on Dockweiler State Beach, and transport of contaminated sediments to an inland disposal site.

SUBSTANTIVE FILE DOCUMENTS: See Page 18

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers (Corps) submitted a consistency determination for maintenance dredging of 68,000 cubic yards of contaminated sediments in the Marina del Rey Harbor south entrance channel. Dredge Project Areas 1, 2, 3, and 7 are located adjacent to the middle and south jetties and inside the detached breakwater, and sediments would be excavated using a hydraulic dredge to the authorized depth of -20 feet mean lower low water. The dredged material would then be pumped through a pipeline to a sand separation treatment facility located 1.75 miles south of the dredge area on a paved parking lot at Dockweiler State Beach immediately south of the Los Angeles County Department of Beaches and Harbors maintenance yard. As a result of the proposed sand separation process, between 54,400 and 61,200 cu.yds. of clean sand would be obtained and beneficially reused to nourish the adjacent beach; the 6,800 to 13,600 cu.yds. of contaminated fine-grained materials arising from the process would be disposed at an inland landfill. To avoid potential impacts to sensitive fish and wildlife species and to avoid the peak recreational season, the proposed project is scheduled to occur between September 15, 2008, and March 15, 2009.

Navigation safety is currently impaired in the Marina del Rey south entrance channel due to the accumulation of contaminated sediments in this area since completion of the last maintenance dredging project in the south channel area in 1999. Members of the multi-agency Los Angeles Region Contaminated Sediments Task Force (CSTF), including Commission staff, have worked over the last two years to develop a pilot project that would treat and beneficially reuse the contaminated sediments at Marina del Rey. The proposed project proposes to treat approximately 20 percent of the existing contaminated materials in the Marina del Rey entrance channel. Should this project meet with success, it is expected that the remaining contaminated materials that continue to interfere with safe navigation in this area would be dredged and treated in a similar manner, should funding for that larger project become available.

The proposed maintenance dredging project is consistent with the allowable use, alternatives, and mitigation tests contained in the dredging policy of the California Coastal Management Program (CCMP) (Coastal Act Section 30233(a)). The proposed disposal materials are physically compatible for beach nourishment at Dockweiler State Beach and will remain in the Santa Monica Bay long shore littoral system. The project is consistent with the sand supply policy of the CCMP (Coastal Act Section 30233(b)).

The contaminated sediments in the south entrance channel area are currently exposed to ocean waters and create an adverse impact on water quality and the marine environment. The proposed dredging method, using a small hydraulic dredge with operational restrictions to control turbidity and resuspension of sediments, will create only localized and short-term effects on water quality and marine resources in the dredging areas. These effects are outweighed by the benefits gained from removing the contaminated sediments from the ocean floor and by the knowledge that will be obtained from implementing this pilot sand separation project. Should the results from this project demonstrate an efficient, economical, and environmentally benign method of separating clean sand from contaminated fine-grained sediments, the decades-old problem of managing the removal, treatment, and disposal of contaminated sediments from Marina del Rey Harbor - and

from other southern California harbors, including the Ports of Los Angeles and Long Beach, and from flood control channel and river mouths in the region – can be greatly reduced. The Corps will obtain the approval of the Commission staff and USEPA and California RWQCB staff prior to the initial discharge of decant water to the ocean and placement of separated sands on the beach to ensure that these materials are suitable for discharge and placement. The proposed dredging and removal of contaminated sediments from the Marina del Rey Harbor south entrance channel area will not create significant adverse effects on coastal water quality or marine resources. The project is consistent with the marine resource and water quality protection policies of the CCMP (Coastal Act Sections 30230 and 30231).

The proposed project will not adversely affect the California least tern, western snowy plover, California brown pelican, or California grunion. The project will occur outside the least tern nesting season, Dockweiler State Beach does not provide suitable nesting or foraging habitat for the snowy plover, brown pelicans are tolerant of dredging activities that occur adjacent to their daytime roosts and foraging areas, and the project will not operate during the grunion spawning season. The project is consistent with the environmentally sensitive habitat and endangered species protection policies of the CCMP (Coastal Act Section 30240).

The project will remove shoaling at the Marina del Rey Harbor's south entrance channel and increase recreational boating safety at the harbor. While the proposed dredging could interfere with recreational boating in the south entrance channel area during dredge operations, any impacts will be temporary and are insignificant when compared to the benefit from removing the existing shoaling hazard. The project will generate minor adverse effects on public access and recreation, primarily resulting from the temporary closure of the Dockweiler State Beach north parking lot and a small adjacent beach area during sand separation and placement operations. However, the project will improve recreational opportunities due to the placement of clean and grain-size compatible sand along this stretch of beach. The project is consistent with the public access and recreational boating policies of the CCMP (Coastal Act Sections 30210, 30211, 30213, 30220, 30221, and 30224).

STAFF SUMMARY AND RECOMMENDATION

I. STAFF SUMMARY.

A. Project Description. The U.S. Army Corps of Engineers ("Corps") proposes to maintenance dredge approximately 68,000 cubic yards of contaminated sediments in the south entrance channel of Marina del Rey Harbor in Los Angeles County (**Exhibits 1-3**). Dredge Project Areas 1, 2, 3, and 7 are located adjacent to the middle and south jetties and inside the detached breakwater, and sediments would be excavated using a hydraulic dredge to the authorized depth of -20 feet mean lower low water (**Exhibit 4**). The dredged material would then be pumped through a pipeline to a sand separation treatment facility located 1.75 miles south of the dredge area on a paved parking lot at Dockweiler State Beach immediately south of the Los Angeles County Department of Beaches and Harbors maintenance yard. The separated sands would be beneficially reused to nourish the adjacent beach and the remaining contaminated fine-grained materials would be disposed at an inland landfill. To avoid potential impacts to sensitive fish

and wildlife species and to avoid the peak recreational season, the proposed project is scheduled to occur between September 15, 2008, and March 15, 2009. The dredging, treatment, and disposal of the dredged materials are expected to take approximately 34 days over a 10- to 14-week period. The Commission has reviewed consistency determinations for Corps of Engineers maintenance dredging projects at Marina del Rey since 1986, and most recently in 2006 when the Commission concurred with CD-040-06 for the dredging of 345,000 cubic yards of clean sediments from Project Areas 5 and 6 in the north entrance channel and nearshore and beach disposal of the clean sands.

The Corps states that the proposed project is necessary in order to: (1) maintain the authorized channel depth in the Marina del Rey entrance channel, which is subject to continuous filling by sand accretion; (2) assure continued safe navigation for maritime traffic within the harbor; (3) minimize the risk of hazardous shoaling conditions within the entrance channel; (4) provide beach nourishment materials for the downcoast beach; and (5) implement a pilot sediment treatment project to determine the feasibility of treating contaminated materials by using the sand separation method. Navigation safety is currently impaired in the Marina del Rey south entrance channel due to the accumulation of contaminated sediments in the area behind the detached breakwater since completion of the last maintenance dredging project in the south channel area in late 1999. The consistency determination states that:

> *The entrance channel to the Marina del Rey Harbor routinely becomes shoaled from sediment loads carried down Ballona Creek and through littoral transport from the north. . .* [**Exhibit 5**] *As with other entrance channels to southern California harbors, the sediments in the Marina del Rey entrance channel shoals are generally sandy and contain an appreciable portion of contaminated material unacceptable for unconfined ocean disposal.*
>
> *The lack of readily available local disposal sites for contaminated sediments and the considerable expense associated with disposing of these sediments at upland locations has prohibited the Corps from performing routine maintenance dredging at Marina del Rey Harbor. As such, in recent years dredging has been limited to only selective areas or emergency maintenance projects. While these emergency dredging projects have succeeded in temporarily alleviating the immediate navigation hazards from the north and south entrance channels, these areas are still filled by sediment deposition in the winter and post-winter storm seasons. Thus, the threat to navigational safety and harbor use will only be alleviated if regular maintenance dredging can occur.*

The most recent maintenance dredging project in 2007 avoided the areas of contaminated sediments in the entrance channel due to the aforementioned lack of a disposal site for these materials. Members of the multi-agency Los Angeles Region Contaminated Sediments Task Force (CSTF), including Commission staff, have worked over the last two years to develop a pilot project that would treat and beneficially reuse the contaminated sediments at Marina del Rey. The proposed project proposes to treat approximately 20 percent of the contaminated materials in the Marina del Rey entrance channel. Should this project meet with success, it is expected that the remaining contaminated materials that continue to interfere with safe

navigation in this area would be dredged and treated in a similar manner, should funding for that larger project become available. The Corps states in its consistency determination that:

> *Regional solutions for contaminated sediment disposal have been the focus of ongoing efforts by the Corps and CSTF, as shown in the Corps' development of the Los Angeles Regional Dredged Material management Plan (DMMP) and the CSTF's Long-Term Management Strategy (LTMS). The Los Angeles regional DMMP serves as a regional management framework, covering multiple ports and harbors, including Marina del Rey Harbor. This pilot project seeks to validate a potential regional treatment option for contaminated sediments and is consistent with the Los Angeles Regional DMMP and CSTF LTMS and is conducted as discussed in these documents.*

The Corps describes the proposed Marina del Rey sand separation treatment and testing process as follows:

> *The proposed treatment process for Marina del Rey contaminated sediment includes the development and testing of a sand separation pilot treatment system. Sand separation is a process where (through a series of mechanical steps) dredged material can be separated into particle size classes (e.g., sands and finer grained fractions) for potential beneficial reuse or simply to concentrate the contaminants. Fines, once separated from the sand component, are primarily silt and clay, which are more mobile and adsorb a greater amount of contaminants than sand. Since contaminants are typically bound to the organic layers of fine-grained particles, the first step (sand separation) can be effective in producing a clean sand product, which can then be beneficially reused as near shore beach nourishment.*
>
> *The anticipated treatment process for Marina del Rey includes the use of hydrocyclones, which allow the heavier (i.e., clean) sand fractions to migrate to the outside of the cone and drop out in the underflow, while the less dense, finer-grained (contaminated) fractions are carried to the center of the cone and flow out the top as the overflow.* [**Exhibit 6**] *This fine-grained slurry (i.e., overflow) can then be transferred to a second piece of equipment (e.g., belt press) and dewatered to produce a dry cake for landfill disposal, with the wastewater either being reused for additional dredge slurry or discharged back to the sample location after treatment, as necessary, to meet water quality discharge requirements.*
>
> *The anticipated treatment design for Marina del Rey is to hydraulically dredge the contaminated sediments and pump them to the treatment facility located in an adjacent parking lot. The dredge slurry will pass through a scalper to remove large debris and then proceed to the hydrocyclones to remove the sand. The "clean" sand will then leave the system and be tested to verify its chemical concentrations while the fine grained sediment slurry will continue to a treatment system to filter it out for disposal. The latter step will produce "clean" water for discharge back to the dredge location and a dewatered fine grained sediment cake for disposal at an approved landfill.*
>
> *Typical waste water treatment procedures will be employed which allow the particulates to settle in a tank for removal and disposal, while the clean water overflows from the top of the*

system. Prior to discharge, the decant water will be tested to ensure it complies with the appropriate discharge requirements. For the current project, it is anticipated that treated process waters that comply with the California Ocean Plan screening concentrations for priority pollutants will be suitable for immediate discharge. If these standards are not achievable, the project will be halted and the CCC and Water Board will be consulted before proceeding.

Following treatment, the clean sand will be discharged from the treatment plant straight on the beach to be used as beach nourishment. As the clean sand is generated, it will either be loaded into trucks and deposited on the adjacent beaches or simply graded at the existing location. The exact screening criteria to be used for determining beach suitability will be decided through agency consultations once the project is up and running. However, it is assumed that all processed sands containing chemical concentrations below ER-L's[1] will be immediately considered suitable for beach placement. Concentrations above ER-L levels do not preclude beach placement, but will require coordination with the USEPA, RWQCB, and CCC prior to placement. As with the decant water, the project will be halted if these standards cannot be achieved and the CCC and Water Board will be consulted prior to proceeding.

To verify that the anticipated treatment design is functioning properly, an initial batch of dredge material will be processed and tested prior to proceeding. Once the initial batch has been processed, the system will be shut down while the Corps has the material tested and conducts an expedited meeting with the agencies to receive concurrence before proceeding. Once approval to proceed has been received, the Corps will begin dredging and processing the remainder of the material, testing both the water and sand outputs on a routine basis. Until all are confident in the treatment system, it is anticipated that samples will be collected at least every other day at first, and then be reduced to bi-weekly or weekly as the project progresses. All initial samples will be sent for rush analyses so that the results are available within 24-48 hours.

Should the system not produce beach-compatible sand, the project will be stopped.

The Corps further states that the 68,000 cu.yds. of material to be dredged has a sand content of approximately 80-90 percent and as a result it expects that between 54,400 and 61,200 cubic yards of clean sand would be generated for beach nourishment and between 6,800 and 13,600 cu.yds. of contaminated fine-grained materials would be transported to an inland disposal facility. Based on similar projects using hydrocyclones, approximately 2,600 cu.yds. of sediment would be treated per day in the proposed project. As described previously in this report, a temporary sand separation facility would be placed in the parking lot adjacent to the Los Angeles County Department of Beaches and Harbors maintenance yard on Dockweiler State Beach approximately 1.75 miles south of the dredging area (**Exhibit 7**). The Corps reports that:

[1] ERL (Effects Range – Low) and ERM (Effects Range – Medium) are indicators of elevated levels of contaminants. ERL is the concentration of a contaminant above which harmful effects may be expected to occur. ERM is the concentration of a contaminant above which harmful effects always or almost always occur.

Because the expected chemical concentrations in the dredged material are well below human health screening concentrations, no potential threats to public safety will arise from locating the treatment facility adjacent to the beach and other recreational activities. Institutional controls (e.g., temporary fences) will be employed to restrict access to the actual treatment equipment.

Upon completion of dredging, treatment, and disposal, the project area will be restored to pre-project condition. The sand separation facility will be disassembled and returned to the vendor, and the hydraulic pipeline will be removed and the bicycle and pedestrian pathway restored. The consistency determination concludes with a list of environmental commitments incorporated into the proposed project (**Exhibit 10**).

B. Federal Agency's Consistency Determination. The U.S. Army Corps of Engineers has determined the project consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

II. STAFF RECOMMENDATION.

The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission **concur** with consistency determination CD-041-08 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:

The staff recommends a **YES** vote on the motion. Passage of this motion will result in an agreement 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 U.S. Army Corps of Engineers, 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.

III. Findings and Declarations:

The Commission finds and declares as follows:

A. Dredging. The Coastal Act provides the following:

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

The proposed maintenance dredging project needs to be examined for consistency with Section 30233(a) of the Coastal Act. Under this section, dredging of open coastal waters, including disposal of dredged materials, is limited to those cases where the proposed project is an allowable use, is the least damaging feasible alternative, and where mitigation measures are provided to minimize environmental impacts. The dredging of existing navigation channels is an allowable use under Section 30233(a)(2). There are no feasible alternatives to dredging the entrance channel as this navigation feature must be maintained to provide safe access between the harbor and offshore waters for recreational, commercial, and public safety vessels. Given the severely limited number of feasible disposal locations for contaminated dredged sediments in southern California, the proposed pilot study of the sand separation project at Marina del Rey Harbor is expected to result in the beneficial reuse of approximately 80-90 percent of the 68,000 cu.yds. of dredged material and significantly reduce the final volume of contaminated materials. The alternative is to transport all the dredged materials to an inland landfill and lose the opportunity to nourish Dockweiler State Beach with the clean, separated sands. As discussed in the following sections of this report, mitigation measures are incorporated into the project where necessary to protect coastal resources. Therefore, the Commission finds that the proposed maintenance dredging project is consistent with the allowable use, alternatives, and mitigation tests contained in the dredge and fill policy of the California Coastal Management Program (CCMP) (Coastal Act Section 30233).

B. Sand Supply. Section 30233(b) of the Coastal Act provides the following:

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

The Corps proposes to dispose at Dockweiler State Beach between 54,400 and 61,200 cubic yards of clean sandy dredged material obtained from the pilot sand separation project, which will process materials dredged from Marina del Rey Harbor Dredge Project Areas 1, 2, 3, and 7. The proposed disposal materials are physically compatible for beach nourishment at this location, and these materials will be tested to ensure they do not contain levels of contaminants that preclude their placement on the beach. As in previous Marina del Rey maintenance dredging projects, dredged materials placed at this location will nourish Dockweiler State Beach and remain in the Santa Monica Bay long shore littoral system. Therefore, the Commission finds that the proposed maintenance dredging project is consistent with the sand supply policy of the CCMP (Coastal Act Section 30233(b)).

C. Water Quality and Marine Resources. The Coastal Act provides the following:

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

The consistency determination first examines the existing water quality, sediment, and marine resource conditions in the project area. Water quality at Marina del Rey Harbor is affected by activities both inside and outside the harbor. The Corps reports that the harbor receives pollutants through sewage overflows, storm drains, accidental spills, and antifouling paint compounds leaching into the water. During the dry season, the primary source of chemicals affecting the harbor has been attributed to marine vessel activities. During the wet season, the primary source is likely stormwater runoff containing elevated concentrations of heavy metals, organic compounds, and bacteria. Discharge from adjacent Ballona Creek affects the harbor in two ways. First, sediment accumulation at the mouth of the creek reduces flushing of the harbor during storm flow events, which can lead to an accumulation of chemicals in harbor waters. Second, because a portion of the Ballona Creek discharge is deflected by the detached breakwater toward the harbor entrance channel, contaminated sediments and stormwater have the potential to be transported into the harbor during flood tide events. This source of wet weather discharge can be significant.

The consistency determination next examines the sediment quality at the proposed dredging areas. Physical grain size tests were performed by the Corps in 2004; **Exhibit 8** summarizes the test results for the nine dredge areas at Marina del Rey Harbor and **Exhibit 4** shows the boundaries of those areas. The proposed project will remove shoaled materials in Areas 1, 2, 3, and 7. These areas have an average percent sand content of 89, 92, 89, and 71 percent, respectively. The 2004 physical sampling test results demonstrated that Dockweiler State Beach has an average sand content of 91 percent and is therefore a compatible site to receive sand generated by the proposed sand separation project.

In May 2005 the Corps determined the chemical characteristics of the entrance channel sediments:

> *A total of 35 locations were selected and sampled in the outer portion of the entrance channel and advanced maintenance areas. The 35 locations (MDRDCO4-08 through MDRDCO4-16 and MDRDCO4-21 through MDRDCO4-23) were divided among nine subareas (i.e., 1 through 9), consisting of three to five locations each (Figure 4). A single diver core was collected at each location for physical and chemical analyses. The results from the sampling program detail the sediment's physical and chemical characteristics of the areas within the north entrance, south entrance, and main entrance navigation channels, and are discussed below.*
>
> *For the proposed maintenance dredging of contaminated sediments at Marina del Rey Harbor, the comparative tools used to predict potential toxicity associated with the sediments are based on guidance provided by Long and Morgan's effects range low (ERL) and effects range medium (ERM; Long et al. 1990) for metals and the Corps' Trophic trace Bioaccumulation Trigger Model for persistent bioaccumulative organics (e.g., DDT and PCB).*
>
> . . .
>
> *Chemistry results from the most recent Marina del Rey Harbor entrance channel sampling program conducted by the Corps showed contaminated sediments were located in Areas 1, 2, 3, portions of Area 4, and most of Area 7 (Corps 2004) . . . .*

The range, average concentration, ERL, ERM, and the Project Dredge Areas of concern for arsenic, copper, lead, mercury, silver, and zinc are provided in **Exhibit 9**.

The Corps also reported in its consistency determination that:

> *Total PCB concentrations ranged from 10.6 to 580 milligrams per kilogram (mg/kg). The TrophicTrace bioaccumulation trigger value for total PCBs is 89.6 mg/kg, suggesting that individual data points exceed this value. High PCB concentrations were detected in areas 1, 2, 3, and portions of Area 4 as well as the majority of Area 7.*

Total DDT concentrations ranged from 3.4 to 145 mg/kg. The TrophicTrace bioaccumulation trigger value for total DDT is 38.9 mg/kg. High concentrations of DDT were detected in Area 7.

Most of the benthic habitat in Marina del Rey Harbor is subtidal soft-bottom habitat. The breakwater and entrance channel jetties are constructed of rip-rap and support hard-bottom species. The entrance and mid-channel areas of the harbor are characterized by high marine species abundance and diversity, including California halibut and white sea bass. Eelgrass was not observed in the entrance channel areas in the 2006 field survey.

The consistency determination next examines the effects of the proposed project on water quality and marine resources:

The hydraulic dredging of the Harbor will result in the elimination of contaminated sediments from the south entrance channel, which is a beneficial impact to sediment and water quality. Impacts due to turbidity and suspension of contaminated materials will be adverse but temporary, with turbidity levels returning to baseline values after the conclusion of operations.

. . .

. . . sediment resuspension occurs at the level of the suction device because hydraulic dredges typically entrain sediments at the bottom of the water column. The cutterhead dredge is capable of removing sediment with relatively low levels of sediment resuspension extending beyond the immediate vicinity of the dredge as compared to other conventional dredge types (Anchor 2003).

. . .

Impacts to biological resources are expected to be minimized due to the localized dredge operation at Marina del Rey Harbor south entrance channel. Best management practices (BMPs) will be employed during construction to minimize turbidity and other direct impacts to marine organisms.

. . .

Rules and methods set out in the CSTF LTMS (2005) BMP toolbox for dredging activities shall be provided to the dredge contractor to satisfy federal and state water quality requirements (i.e., operation controls), which are defined as modifications in the operation of the dredging equipment to minimize resuspension of materials. Operational controls for hydraulic dredges will be selected on the specific type of hydraulic dredge employed, however, examples of operational controls include:

- *Reducing cutterhead rotation speed reduces the potential for side casting the excavated sediment away from the suction entrance and resuspending sediment.*

This measure is typically effective only on maintenance or relatively loose, fine grain sediment.

- *Reducing swing speed reduces the volume of resuspended sediment and ensures that the dredge head will not move through the cut faster than it can hydraulically pump the sediment. The goal is to swing the dredge head at a speed that allows as much of the disturbed sediment as possible to be removed with the hydraulic flow. Typical swing speeds are 5 to 30 feet per minute.*

The contaminated sediments in the north entrance channel area are currently exposed to ocean waters and create an adverse impact on water quality and the marine environment. The multi-agency Los Angeles Region Contaminated Sediments Task Force (CSTF), which includes Coastal Commission staff, reviewed the sediment chemistry test data for the proposed project dredge areas and agree with the Corps that the 68,000 cu.yds. of sediment proposed for dredging are currently unsuitable for unconfined aquatic disposal or beach nourishment. Because these and the other 272,000 cu.yds. of contaminated sediments in the project area must eventually be removed to maintain safe vessel ingress and egress at Marina del Rey Harbor, there will be unavoidable but temporary adverse effects on water quality and marine resources regardless of the final disposition and destination of the sediments once they are removed from the entrance channels. The proposed project will not lead to any permanent loss of benthic or fishery habitat in the dredge areas, and recolonization of soft-bottom habitat will commence soonafter completion of dredging despite the dynamic wave and current environment in this area.

The proposed dredging method, using a small hydraulic dredge with operational restrictions to control turbidity and resuspension of sediments, will create only localized and short-term effects on water quality and marine resources in the dredging areas. These effects are outweighed by the benefits gained from removing the contaminated sediments from the ocean floor and by the knowledge that will be obtained from implementing this pilot sand separation project. The proposed project follows a recent successful, albeit smaller-scale, hydrocyclone sand separation project using contaminated sediments removed from the mouth of the Los Angeles River in the City of Long Beach. Should the results from the larger Marina del Rey sand separation project demonstrate an efficient, economical, and environmentally benign method of separating clean sand from contaminated fine-grained sediments, the decades-old problem of managing the removal, treatment, and disposal of contaminated sediments from Marina del Rey Harbor - and from other southern California harbors, including the Ports of Los Angeles and Long Beach, and from flood control channel and river mouths in the region – can be greatly reduced.

At the May 5, 2008, meeting of the CSTF, agency staff members undertook an extensive discussion of the testing criteria that should be used for determining the suitability for the clean sands produced by the hydrocyclone separation process for use as beach nourishment material. The CSTF members generally agreed that using the ER-L (Effects Range - Low) standard was not an appropriate standard for beach nourishment as it would be too stringent and could adversely affect the project's success. While the members agreed that it would not be useful at this time to establish ironclad levels of contaminants for separated sands to be used for beach nourishment, the members did agree that a sand testing protocol and a screening criteria to

determine beach suitability would need to be established prior to project start-up. To that end, the Corps incorporated the following plan into the consistency determination:

> *The exact screening criteria to be used for determining beach suitability will be decided through agency consultations once the project is up and running. However, it is assumed that all processed sands containing chemical concentrations below ER-L's will be immediately considered suitable for beach placement. Concentrations above ER-L levels do not preclude beach placement, but will require coordination with the USEPA, RWQCB, and CCC prior to placement. As with the decant water, the project will be halted if these standards cannot be achieved and the CCC and Water Board will be consulted prior to proceeding.*
>
> *To verify that the anticipated treatment design is functioning properly, an initial batch of dredge material will be processed and tested prior to proceeding. Once the initial batch has been processed, the system will be shut down while the Corps has the material tested and conducts an expedited meeting with the agencies to receive concurrence before proceeding. Once approval to proceed has been received, the Corps will begin dredging and processing the remainder of the material, testing both the water and sand outputs on a routine basis. Until all are confident in the treatment system, it is anticipated that samples will be collected at least every other day at first, and then be reduced to bi-weekly or weekly as the project progresses. All initial samples will be sent for rush analyses so that the results are available within 24-48 hours.*
>
> *Should the system not produce beach-compatible sand, the project will be stopped.*

After discussions with Commission staff, the Corps agreed to modify the proposed project in several ways to ensure further protection of water quality, marine resources, and public recreation. The Corps agreed that prior to commencement of the project, it will consult with the members of the CSTF on the aforementioned sand separation process procedures. The Corps will also obtain the approval of the Commission staff and USEPA and California RWQCB staff prior to the initial discharge of decant water to the ocean and placement of separated sands on the beach to ensure that these materials are suitable for discharge and placement. In addition, because the Corps will use a chemical flocculant in the sand separation process, it has committed to: (1) obtaining approval, prior to the start of dredging, from Commission staff and USEPA and RWQCB staff for the type of flocculant (or other chemical treatment or additive) to be used in the process; and (2) adding to the sand separation process further testing and monitoring of the decant water prior to its discharge to ocean waters to ensure that the chemically-treated discharged water is non-toxic. The Corps also will ensure that the chemical and physical quality of the separated sand will be compared to human health screening levels that are appropriate for the conditions of this project (e.g. screening levels based on the USEPA's Preliminary Remediation Goals) and to existing Dockweiler Beach sediment quality to ensure that sand placed on the beach is safe for placement on the beach. Finally, should approval for initial water discharge or sand placement not be obtained from the Commission staff and USEPA and RWQCB staff, the Corps will return to the Commission prior to re-starting project dredging to

obtain concurrence with alternate procedures to handle and dispose of decant water and separated sands.

In conclusion, the proposed dredging and removal of contaminated sediments from the Marina del Rey Harbor Dredge Project Areas 1, 2, 3, and 7 will not create significant adverse effects on coastal water quality or marine resources. Therefore, the Commission finds that the proposed project is consistent with the marine resource and water quality protection policies of the CCMP (Coastal Act Sections 30230 and 30231).

D. Environmentally Sensitive Habitat/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 park 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.

The proposed maintenance dredging project may affect three federally listed species: the California least tern, the western snowy plover, and the California brown pelican. The consistency determination provides the following:

> *The California least tern, California brown pelican, and western snowy plover are state and/or federally listed as threatened or endangered in the vicinity of Marina del Rey Harbor. A California least tern colony is located approximately 400 feet upcoast from the northern entrance channel jetty to Marina del Rey Harbor. California least terns are present in southern California during their breeding season, between April and September, while California brown pelicans forage along the coast of California all year, but in smaller numbers during the breeding season (approximately January through June). Wintering western snowy plovers have been observed in the vicinity of Marine del Rey Harbor and beaches, although infrequently, most likely due to the extensive beach grooming activities conducted by the Los Angeles County Department of Beaches and Harbors . . . Although the beach may be too narrow to permit successful spawning, grunion may occasionally attempt to use Dockweiler State Beach.*

The Corps concluded in its consistency determination that because the proposed project will occur between September 15, 2008, and March 15, 2009, there will be no adverse effect to these species as a result of the dredging, treatment, and disposal of dredged sediments from the Marina del Rey Harbor north entrance channel. Because dredging will not occur during the spring and summer least tern nesting season, the proposed dredging and placement of dredged material will not affect least tern nesting, foraging, or roosting behavior or habitat. Due to the level of high recreational use and the intense mechanical beach cleaning at Dockweiler State Beach, this sandy beach habitat does not meet the primary constituent elements for snowy plover nesting or

foraging and the project will therefore not affect the snowy plover. The noise and activity of dredging could temporarily displace brown pelicans that roost on the nearby breakwater and jetties. Brown pelicans are generally tolerant of such human activities near their daytime roosts; however, there is increased sensitivity at nighttime roosts. Unlike the 2007 maintenance dredging project which operated 24 hours/day and required brown pelican protection measures, the proposed project will not operate at night and will therefore not adversely affect the nighttime roosts of brown pelicans. Turbidity from dredging could force pelicans to forage away from the immediate vicinity of the dredge, although this 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 in the nearshore environment to forage and would not be affected by the dredging activities.

The Corps reports that the placement of dredged material on the beach would have only minor and temporary impacts to terrestrial biological resources. Little or no vegetation is found on the Dockweiler State Beach replenishment site due to wave action, erosion, and the previous placement of dredged material. While the California grunion does spawn at this location, because the project will occur outside the spring and summer spawning period, the project will not adversely affect California grunion.

In conclusion, the proposed dredging of contaminated sediments and the placement of the separated and clean sandy dredge materials from the Marina del Rey north entrance channel on the beach at Dockweiler State Beach will not significantly affect environmentally sensitive habitat or endangered species found at these locations. Therefore, the Commission finds that the proposed project is consistent with the environmentally sensitive habitat and endangered species protection policies of the CCMP (Coastal Act Section 30240).

E. <u>Public Access and Recreation</u>. The Coastal Act provides the following:

> <u>Section 30210</u>. *In carrying out the requirement of Section 4of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*
>
> <u>Section 30211</u>. *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*
>
> <u>Section 30213</u>. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided . . . .*
>
> <u>Section 30220</u>. *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

> Section 30221. *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*
>
> Section 30224. *Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division . . . .*

The Corps of Engineers reports that Marina del Rey is the largest man-made small craft harbor in the world and has over 5,200 in-water slips and 700 land storage spaces available for private boats, commercial fishing vessels, and U.S. Coast Guard vessels. The harbor entrance is composed of four major structures: the north, middle, and south jetties and a detached breakwater. The entrance channel to the harbor requires frequent dredging to maintain safe passage. If maintenance dredging does not occur, unsafe depths in or closure of the entrance channel would prevent thousands of recreational and commercial vessels from leaving or entering the harbor, and would hinder ocean rescue operations by Los Angeles County and U.S. Coast Guard vessels based inside the harbor.

The Corps states that the proposed dredging will be conducted such that potential obstructions to and/or interference with vessels navigating the harbor entrance channel is minimized:

> *The addition of the dredge and associated work vessels to the active south entrance channel will result in temporary and minor constraints to vessel traffic flow. The hydraulic pipeline will be placed along the beach and will not impact recreational vessel traffic. Buoys will protect the immediate dredging area, and commercial vessels will be fully informed of the construction activities and should have no difficulties in maneuvering through the north entrance channel or around the dredging equipment. Since the proposed project is scheduled during the non-peak boating season and recreational use is low, a temporary, insignificant impact may occur for the duration of the project.*

The proposed project will remove shoaling at the Marine del Rey Harbor south entrance channel and, as a result, will significantly increase the safety of recreational boating at the harbor. While the proposed dredging could interfere with recreational boating in the south entrance channel area during dredge operations, any impacts will be temporary and are insignificant when compared to the benefit from removing the existing shoaling hazard.

The consistency determination next examines potential impacts arising from sand separation and disposal operations at Dockweiler State Beach, one of nine state beach units operated by the Los Angeles County Department of Beaches and Harbors. This state beach encompasses approximately 288 acres of land, and extends for three miles along the shoreline south from Marina del Rey Harbor and west of Playa del Rey and Los Angeles International Airport (**Exhibits 2 and 3**). The consistency determination further states that:

> *Dockweiler State Beach, located on the shore of Santa Monica Bay and south of Marina del Rey Harbor, is heavily used (especially during the summer and on weekends) for*

> *recreational purposes and attracts a substantial number of residents and visitors to the area. Historical beach attendance indicates that approximately 15 million people visit Dockweiler State Beach each year. The beach is a man-made recreational resource and without the continued efforts of beach nourishment projects, Dockweiler State Beach will only consist of the beach bluffs, as it did in the 1920s and 1930s. Since Dockweiler State Beach is south of the Marina del Rey Harbor entrance channels, jetties, and detached breakwater, the normal littoral sediment transport does not reach this area; therefore, it is a high priority for clean, dredged material to renourish Dockweiler State Beach . . . .*

The sand separation facility would be placed and operated on the paved public parking lot located immediately south of the Los Angeles County Department of Beaches and Harbors maintenance yard complex (**Exhibit 7**). This parking lot is the northernmost of the Dockweiler State Beach parking lots, is located directly underneath the Los Angeles International Airport take-off zone, and is subject to constant noise from jet aircraft operations. This parking lot would be closed to public use during the set-up, the approximately 35 days of actual operations, and removal of the sand separation facility, a time period lasting approximately 10-14 weeks between September 15, 2008, and March 15, 2009. The remaining and larger public parking lots further to the south along the state beach will remain open throughout this time period. By scheduling the dredging and sand separation project during the fall and winter months, closure of this parking lot will not generate significant adverse effects on public access to and recreational use of the state beach.

The Corps states that after the sand separation facility has been assembled, and after the dredging equipment has been mobilized, the pipeline will be placed on the beach as shown in **Exhibit 3**. Placing the pipeline on the beach will avoid creating obstructions to navigation and having to install offshore buoys and markers. Where the pipeline crosses the existing paved bicycle and pedestrian path, the path will be cut and removed, the pipeline installed below grade, and the path restored for continued safe recreational use during construction. The pipeline will then extend along the beach approximately 1.75 miles to the sand separation facility.

The proposed maintenance dredging and sand separation and disposal project would generate only minor adverse effects on public access and recreation, primarily resulting from temporary beach and parking lot closures during sand separation, disposal, and sand moving operations at the northern part of Dockweiler State Beach. However, if successful, the proposed project would improve public access and recreational opportunities due to the placement of clean and grain-size compatible sand along this stretch of Dockweiler State Beach. The project would also improve the safety of recreational boating due to the removal of the shoal which currently interferes with navigation in the south entrance channel at Marina del Rey. Therefore, the Commission finds that the proposed maintenance dredging project is consistent with the public access and recreational boating policies of the CCMP (Coastal Act Sections 30210, 30211, 30213, 30220, 30221, and 30224).

SUBSTANTIVE FILE DOCUMENTS.

1. Consistency Determinations for Corps of Engineers maintenance dredging at Marina del Rey: CD-040-06, CD-022-99, CD-012-98, CD-002-98, CD-088-94, CD-068-94, CD-053-92, CD-031-91, CD-23-88, and CD-057-86.
2. Negative Determinations for Corps of Engineers maintenance dredging at Marina del Rey: ND-022-96 and ND-112-94.

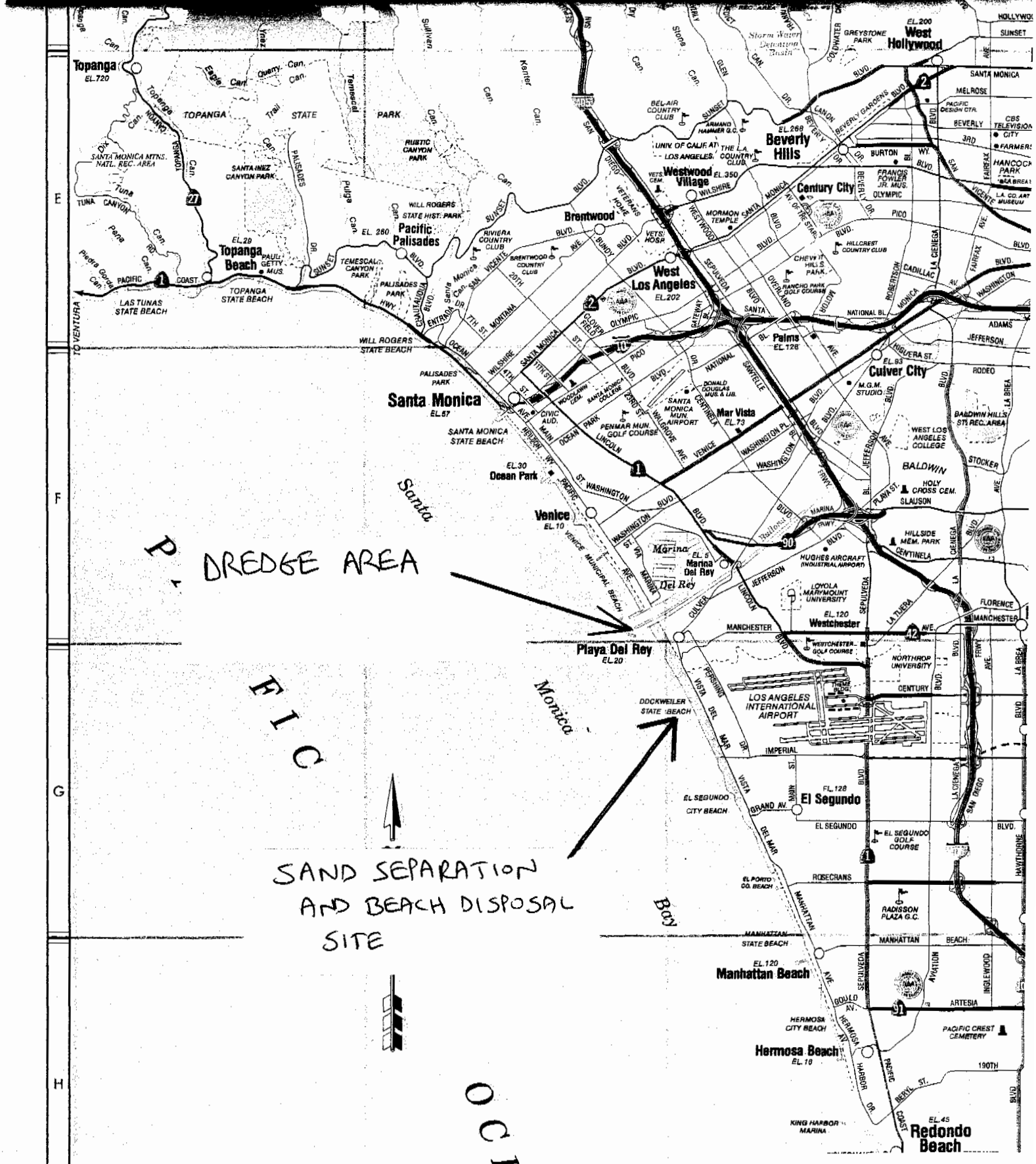

EXHIBIT NO. 1
APPLICATION NO.
CD-041-08

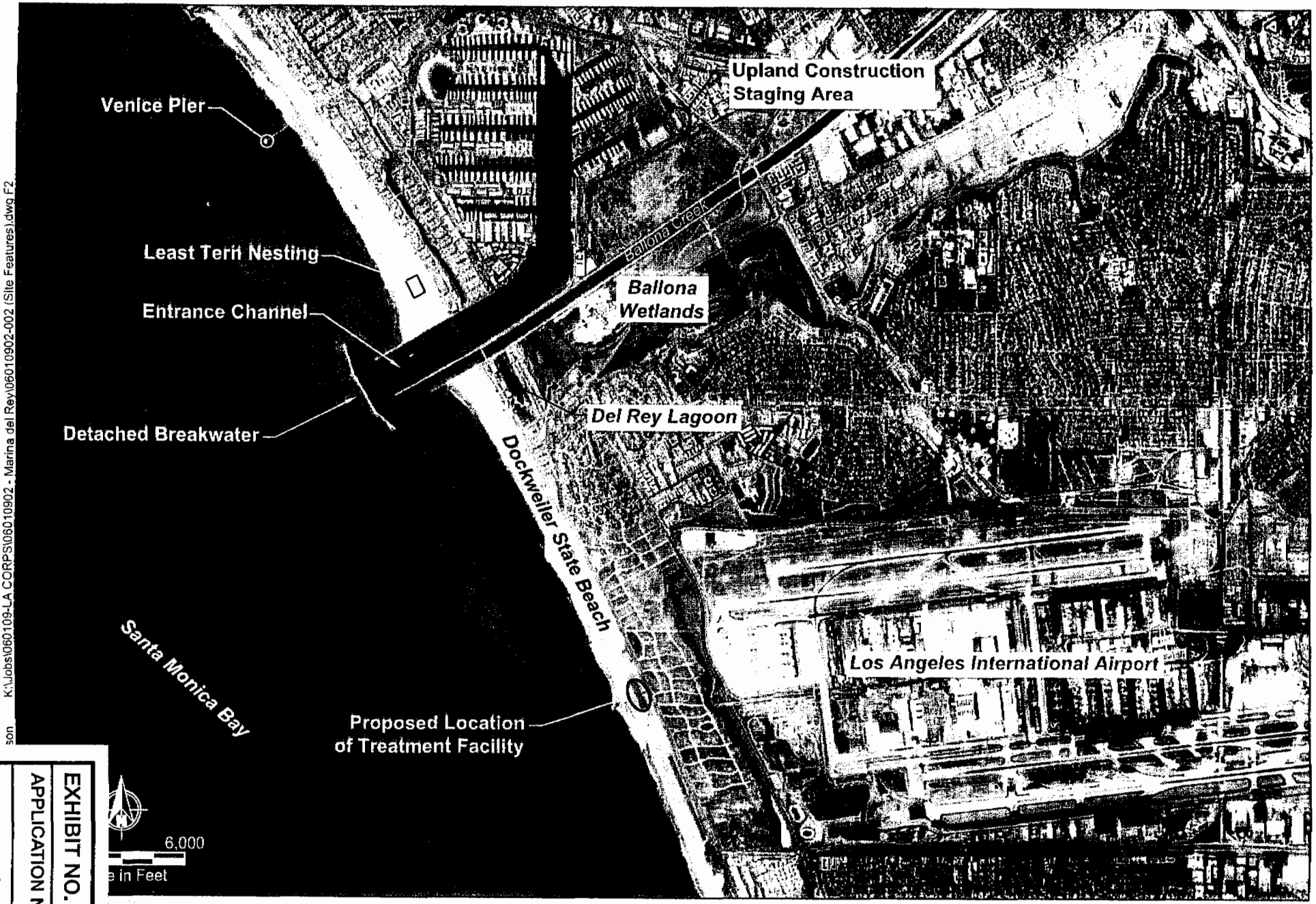

EXHIBIT NO. 2
APPLICATION NO.
CD-041-08

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Figure 2
Site Feature Map
Supplemental Environmental Assessment
Maintenance Dredging at Marina del Rey Harbor

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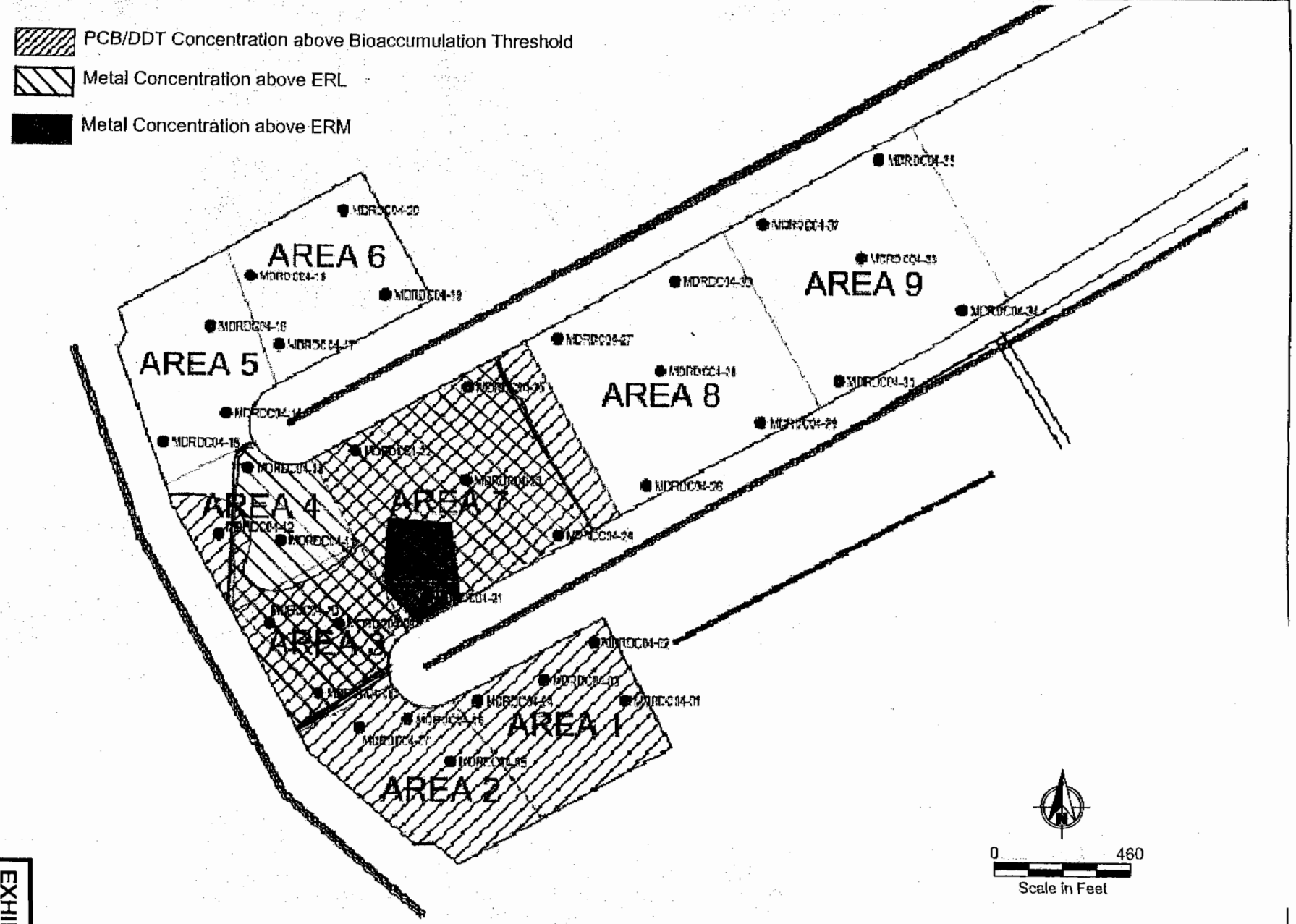
Dredge Barge
Treatment Plant

Figure 5
Proposed Project Activities
Supplemental Environmental Assessment
Maintenance Dredging at Marina del Rey Harbor

EXHIBIT NO. 3
APPLICATION NO.
5-08-041-08



Sam Heriksen K:\Jobs\0601\09-LA CORPS\06010902 - Marina del Rey\06010902-003 (Bathy,Chemical, Decision Tree).dwg F4

EXHIBIT NO. 4
APPLICATION NO.
80-110-CD

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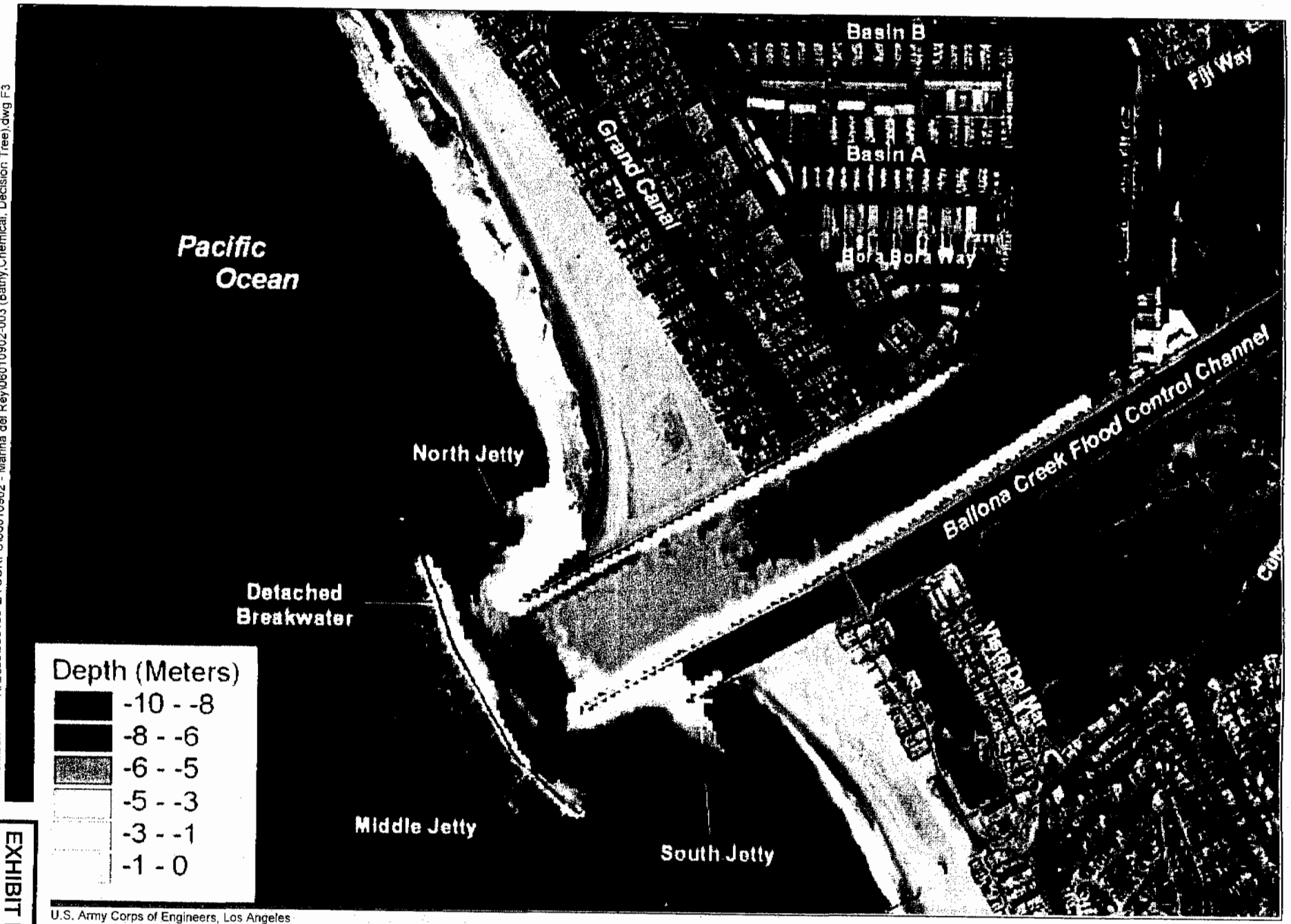
Figure 4
Chemical Concentrations Above Biological Screening Values
Supplemental Environmental Assessment
Maintenance Dredging at Marina del Rey Harbor



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am heriksen

U.S. Army Corps of Engineers, Los Angeles
January 2003 Survey).

ANCHOR ENVIRONMENTAL, L.L.C.

Figure 3
Bathymetric Data
Supplemental Environmental Assessment
Maintenance Dredging at Marina del Rey Harbor

EXHIBIT NO. 5
APPLICATION NO.
CD-041-08

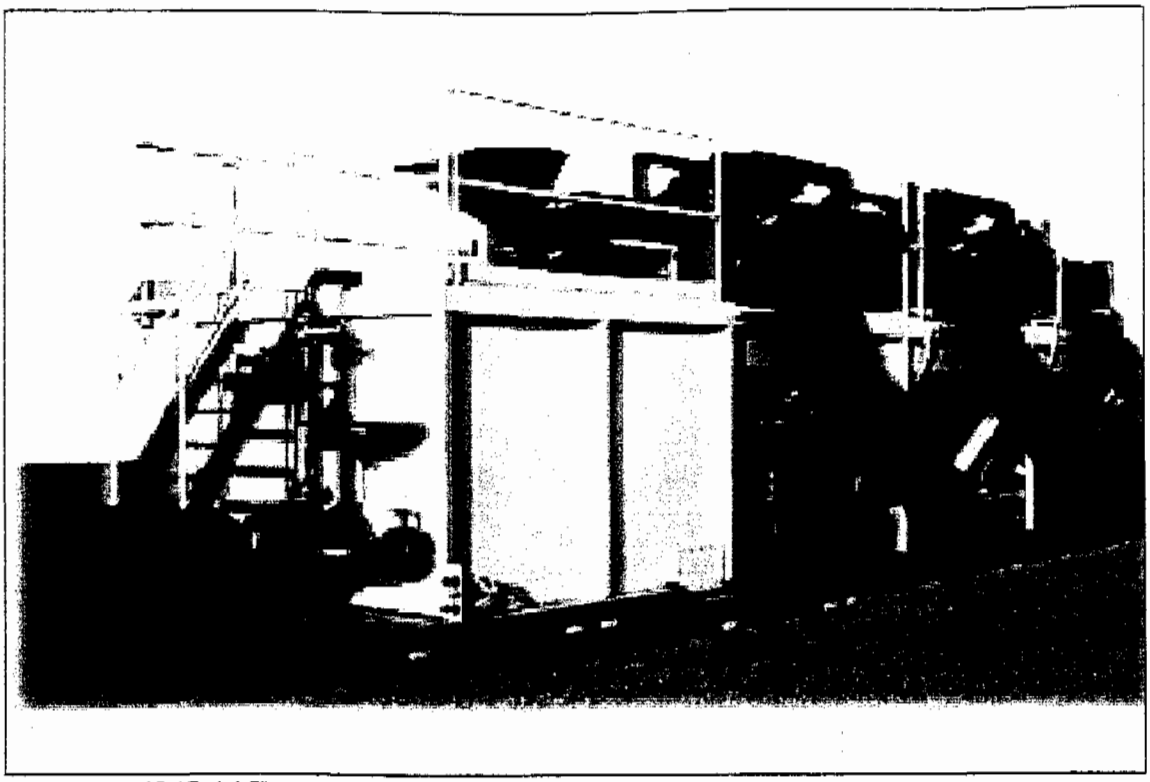


Photo courtesy of Del Tank & Filtration Systems, www.deltank.com

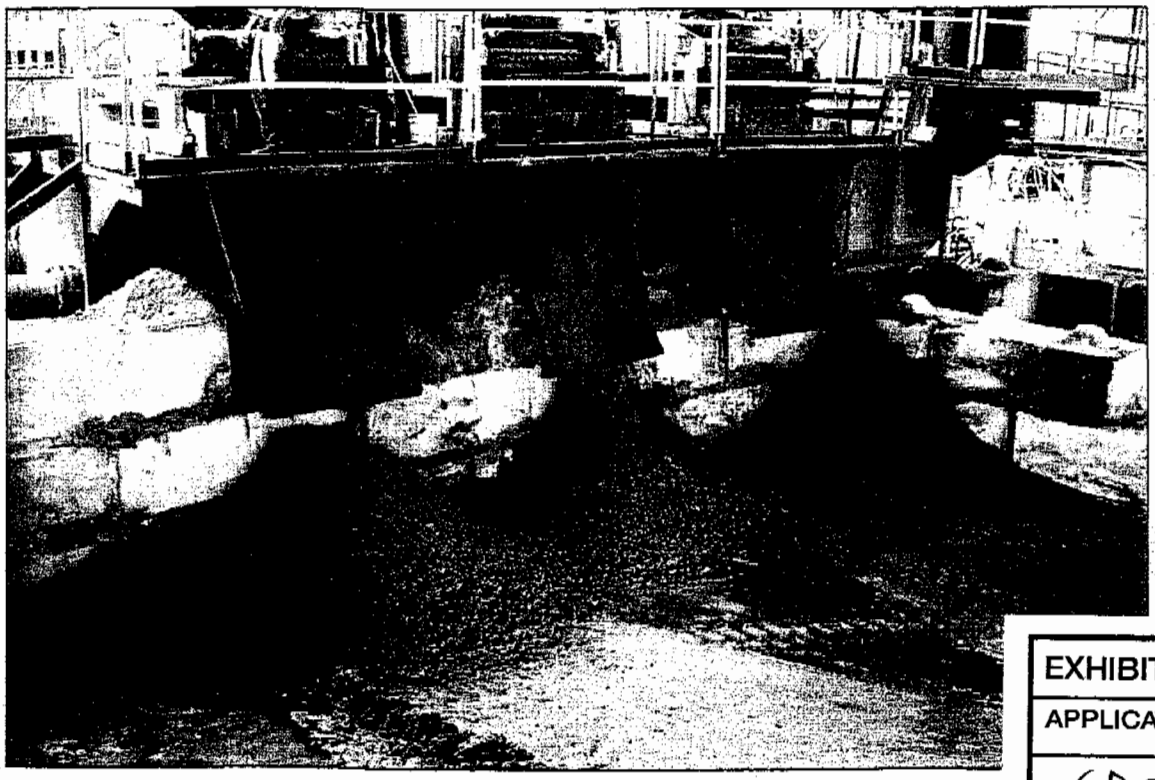
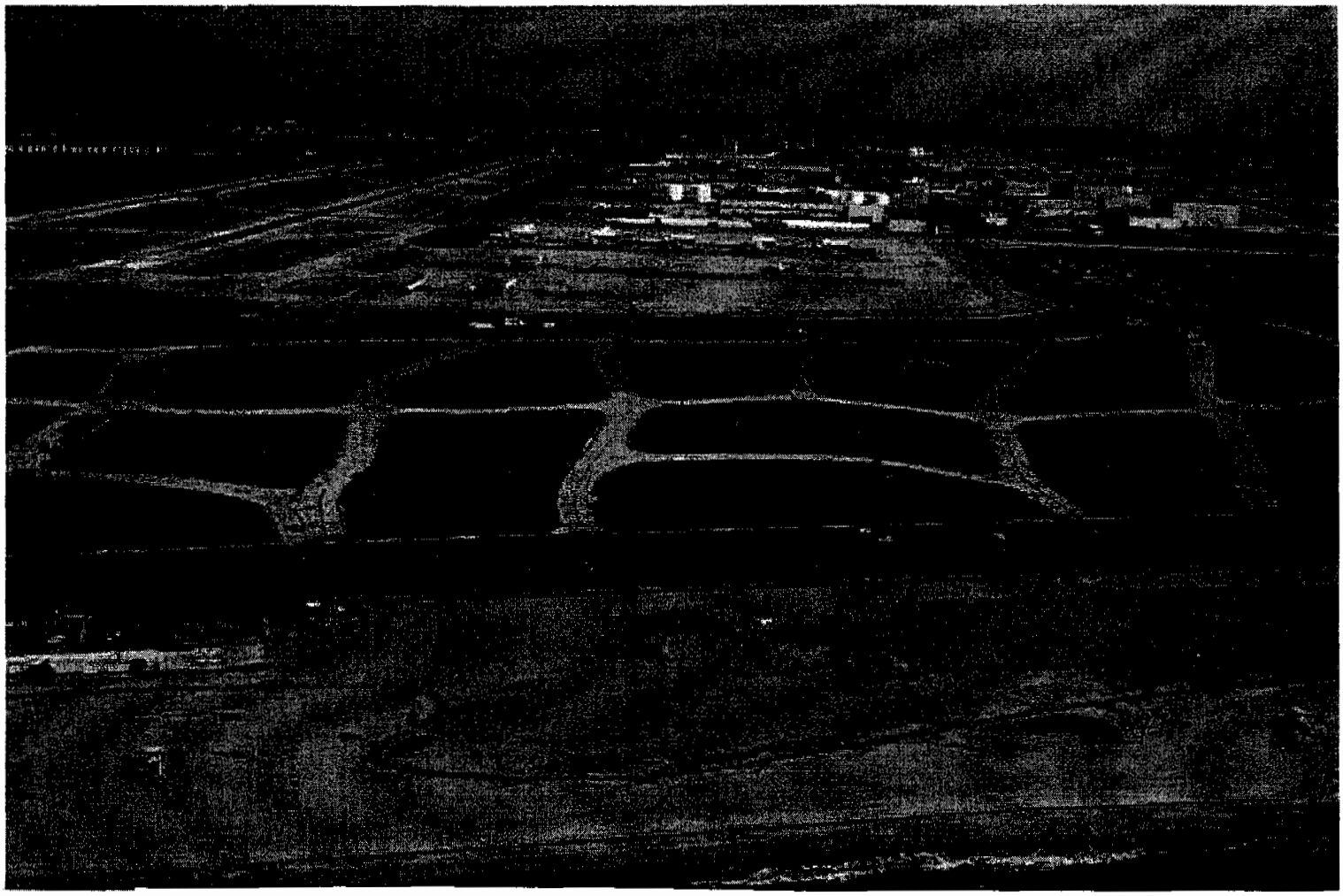


EXHIBIT NO. 6
APPLICATION NO.
CD-041-08

ANCHOR ENVIRONMENTAL, L.L.C.

Photographs of Mobile Treatment Facility
Supplemental Environmental Assessment
Maintenance Dredging at Marina del Rey Harbor



Dockweiler State Beach. Los Angeles County Department of Beaches and Harbors maintenance yard at far left, northernmost state beach parking lot at far right, and Los Angeles International Airport in background. Pilot sand separation facility would be located on the state beach parking lot.

EXHIBIT NO. 7
APPLICATION NO.
CD-041-08

Table 3
Grain Size Distribution in Navigation Channel

Area No.	Area Name	Average Percent Sand	Sediment Description	Average median grain size (mm)
1	Ballona Creek Advance Maintenance Area	89	Primarily medium and fine-grained, poorly-graded sand to silty sand; trash, plant material, and other organic matter was found; shells were also encountered	0.34
2	South Entrance Channel	92	Primarily medium and fine-grained, poorly-graded sand to silty sand; trash, plant material, and other organic matter was found; shells were also encountered	0.33
3	South Half of Outer Main Channel	89	Medium and fine-grained, poorly-graded sand with silt to silty sand; the sediments are finer than Area 2, having less medium sand and more fine sand; trash, plant material, and other organic matter was found; shells were also encountered	0.23
4	North Half of Outer Main Channel	93	Fine-grained, poorly-graded sand to silty sand; minimal amounts of coarse sand and fine gravel were also present; trash, plant material, and other organic matter was found; shells were also encountered	0.16
5	North Entrance Channel	94	Fine-grained, poorly-graded sand to silty sand; minimal amounts of coarse sand and fine gravel were also present; trash, plant material, and other organic matter was found; shells were also encountered	0.16
6	North Advance Maintenance Area	98	Slightly coarser than Areas 4 and 5, having less fines, more medium sand, and nearly identical amount of fine sand; shells were encountered along with minor amounts of trash and organic matter	0.20
7	West Main Channel	71	Significantly more fines than Areas 1 through 6; sediments consist of fine-grained, poorly-graded silty sand; shells were encountered along with minor amounts of trash and organic matter	0.10
8	Middle Main Channel	75	Slightly coarser than in Area 7 but with more variation; sediments range from fine and medium-grained, poorly-graded sand to silty and lean clay with sand; shells were encountered along with minor amounts of trash and organic matter	0.18
9	East Main Channel	71	Slightly finer than Area 8 with a similar amount of variation; sediments range from fine and medium-grained, poorly-graded sand with silt to sandy lean clay; shells were encountered along with minor amounts of trash and organic matter	0.13

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Table 4
Summary of Results for Metals

Metal	Range (mg/kg)	Average Concentration (mg/kg)	ERL (mg/kg)	ERM (mg/kg)	Area of Concern	Figure
Arsenic	3 to 11	5.75	8.2	70	7	7a
Copper	4.3 to 49.1	20.4	34	270	3, 7	7b
Lead	8 to 299	78.5	46.7	218	7	7c
Mercury	Undetected to 0.24	0.06	0.15	0.71	7, 3	7d
Silver	Undetected to 0.21	0.28	1	3.7	7	–
Zinc	34.6	265	150	410	7, 3, 4	7e

8 ENVIRONMENTAL COMMITMENTS

The Corps and contractors will commit to avoiding, minimizing, or mitigating for adverse effects during dredging and disposal activities. Based on the information available to the Corps and recommendations from public agencies, the following environmental commitments will be implemented to minimize potential environmental impacts. Applicable environmental commitments will be incorporated into the project plans and the contract specifications.

8.1 General

1. Dredging shall be conducted in a manner to avoid overdredging in the vertical or horizontal dimensions, to the maximum extent possible.
2. All trash and debris from the Dockweiler State Beach treatment operation and placement of dredged material site shall be removed each day.

8.2 Water Quality

Regardless of predicted water quality impacts, the following standard practices will be specified for the contractor:

1. All dredging and disposal activities will remain within the boundaries specified in this SEA. There will be no dumping of fill or material outside of the project area or within any adjacent aquatic communities.
2. As practicable, the contractor will remove floating debris and deposit the trash in a landfill or other appropriate facility.
3. No stockpiling of contaminated sediment under water will be allowed.

Rules and methods set out in the CSTF LTMS (2005) BMP toolbox for dredging activities shall be provided to the dredge contractor to satisfy federal and state water quality requirements (i.e., operation controls), which are defined as modifications in the operation of the dredging equipment to minimize resuspension of materials. Operational controls for hydraulic dredges will be selected on the specific type of hydraulic dredge employed, however, examples of operational controls include:

- *Reducing cutterhead rotation speed.* Reducing cutterhead rotation speed reduces the potential for side casting the excavated sediment away from the suction entrance and resuspending sediment. This measure is typically effective only on maintenance or relatively loose, fine grain sediment.

- *Reducing swing speed.* Reducing swing speed reduces the volume of resuspended sediment and ensures that the dredge head will not move through the cut faster than it can hydraulically pump the sediment. The goal is to swing the dredge head at a speed that allows as much of the disturbed sediment as possible to be removed with the hydraulic flow. Typical swing speeds are 5 to 30 feet per minute.

8.3 Fish and Wildlife Resources

1. Operators of dredge or other heavy equipment shall not harass any marine mammals, waterfowl, or fish in the project area.
2. If beach placement of dredged material on Dockweiler State Beach occurs after March 15, during grunion season, the zone of activity shall be restricted to a fixed position, clearly marked by flagging, 500 feet in width and extending off-shore. Lateral movement of the outfall shall only occur when seaward extension of the hydraulic pipeline is no longer feasible, and only when dredged material will still remain within the 500-foot zone.
3. Dredging and placement of dredged material will be completed prior to April 1 to avoid potential impacts to California least tern.
4. If a pipeline is used for placement of dredged material on Dockweiler State Beach, beach recontouring or beach grooming during and following pipeline removal will be limited to the footprint of the pipeline in order to avoid covering or removing portions of the wrack line along Dockweiler State Beach, which provides foraging habitat for western snowy plover.
5. If a pipeline is used for placement of dredged material on Dockweiler State Beach, the number of vehicle trips on the beach south of the Ballona Lagoon Marine Preserve will be limited to the installation (mobilization), emergency maintenance, and removal (demobilization) of the pipeline, and manning the placement location (for mandatory safety requirements).
6. The proposed project activities shall not disturb the low lying bluffs, sand dunes or existing vegetation on Dockweiler State Beach.
7. Prior to the initial dredging, the Corps will conduct surveillance level surveys for *Caulerpa taxifolia* in accordance with the Caulerpa Control Protocol (NMFS 2008) not

earlier than 90 days prior to the commencement of dredging and not later than 30 days prior to the onset of work. The Corps will submit survey results to National Marine Fisheries Service and CDFG at least 15 days prior to the start of work.

8.4 Air Quality and Noise

1. A Permit to Operate (PTO) from the SCAQMD or CARB will be obtained occur prior to commencement of dredging on all dredge equipment and ancillary related dredge equipment, pay all associated fees, and follow all permit requirements.
2. Dredges and other construction equipment will be properly maintained in order to minimize release of diesel and hydrocarbon effluent into the atmosphere. The contractor will adhere to all permit requirements, including those regarding emissions, fuel use, and fuel consumption.
3. To reduce the impact from emissions of the dredge, retarding injection timing of diesel-powered equipment for NOx may be considered.
4. If hydraulic pipeline dredge is used, the dredge shall be equipped with selective catalytic reduction control systems.
5. To reduce the impact from emission of the dredge, using reformulated diesel fuel to reduce ROC and SO_2 may be considered.
6. Appropriate measures will be taken to reduce fugitive dust, or PM, caused by beach activities. Vehicle speed on the beach will be kept at a minimum to avoid the formation of dust clouds.
7. Staging and storage areas shall be periodically watered and maintained to minimize fugitive dust.
8. Activities and operations on unpaved areas, such as staging areas, should be minimized to the extent feasible during high wind events to minimize fugitive dust.
9. Equip all internal combustion engines with properly operating mufflers.
10. Noise levels of the dredge and placement of dredged material activity shall not exceed applicable limits established by the County Noise Ordinance. The contractors will be required to obtain a noise variance to work outside allowable work windows.

11. Construction equipment will be properly maintained and scheduled in order to minimize unsafe and nuisance noise effects to sensitive biological resources, residential areas, and the socio-economic environment. Sensitive receptors, such residential, schools and hospitals, will be avoided whenever possible.

12. Within sound range of the residential zone, between the hours of 7 PM and 7 AM, construction activities shall not exceed authorized County Noise Ordinance threshold. If noise exceeds threshold limits, and/or reasonable complaints are received from local residents, the contractor shall implement additional measures to reduce these impacts. Specific measures shall be identified in coordination with the Corp's Contracting Officer.

8.5 Harbor and Land Use

1. Placement and removal of dredging pipes shall be under direct supervision of the Corps and LACDBH dredging coordinators.

2. The Corps contractor shall provide maximum public access to roads, streets, and highways that might be utilized for hauling and maintenance. When possible, large scale truck trips to transport equipment will be limited to off-peak commute periods. Transportation of heavy construction equipment and/or materials that requires the use of oversized-transport vehicles on state highways will require a Caltrans transportation permit.

3. Sand ramps will be constructed over all road crossings, and at intervals along the beach, to maintain public access. Due to beach conditions and sight line visibility, the Corps' contractor must seek approval for an Emergency Access Plan (EAP) from Area Captain, fire department/lifeguard rescue division (phone number 310-372-2166) and the Division Chief, facilities and property maintenance (phone number 310-305-9551) prior to constructing sand ramps. At a minimum, the distance between vehicle crossings will be at intervals of at least 200 feet or at each lifeguard tower location.

4. The contractor shall remove any dredging or beach replenishment-related debris left on the beach as soon as practicable, usually within 24 hours, as requested by the California Department of Parks and Recreation (CDPR).

5. The dredge and associated equipment must be marked in accordance with USCG provisions. The contractor must contact the Eleventh Coast Guard District, Aids to Navigation Branch, 2 weeks prior to commencement of dredging. The following information shall be provided to the USCG:
    - Size and type of equipment to be used in the work
    - Names and radio call signs for working vessels
    - Telephone number for on-site contact with project engineer
    - Schedule for completing the project
    - Any hazards to navigation
6. The contractor shall move equipment upon request by the USCG and harbor patrol law enforcement and rescue vessels.
7. The equipment operator shall be required to display warning lights during all hours of dredging activity.
8. The contractor shall obtain a right of entry permit from the LACDBH for various aspects of this dredging operation.

8.6 Cultural Resources

In the event that previously unknown cultural resources are identified during implementation of the proposed project, all activities will cease until the provisions of 36 CFR 800.11 are met. If resources are deemed eligible for the National Register of Historic Places, the effects of the project will be taken into consideration in consultation with the State Historical Preservation Officer. The Advisory Council on Historic Preservation will be provided an opportunity to comment in accordance with 36 CFR 800.11.