CALIFORNIA LEAST TERN NESTING SITE
MEMORANDUM OF AGREEMENT
AMONG
THE CITY OF LOS ANGELES
AND
THE CALIFORNIA DEPARTMENT OF FISH AND GAME
AND
THE U.S. FISH AND WILDLIFE SERVICE,
AND
THE U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT

This Memorandum of Agreement (hereinafter referred to as MOA) is entered into this _____ day of _____ 2012, by and among the City of Los Angeles acting by and through the Board of Harbor Commissioners of the Los Angeles Harbor Department (hereinafter referred to as LAHD), the California Department of Fish and Game (hereinafter referred to as CDFG) and the U.S. Fish and Wildlife Service, U.S. Department of the Interior (hereinafter referred to as FWS), and the U.S. Army Corps of Engineers, Los Angeles District (hereinafter referred to as COE), pursuant to the authorities, policies, and regulations cited herein regarding the disposition of a nesting site in the LAHD for the California least tern (*Sternula antillarum browni*), a state and federally listed endangered species.

The purpose of this agreement is to resolve land use conflicts between the nesting California least tern and LAHD developments in a manner that protects the interests of both. Further, this agreement will clarify the intent and obligation of all parties with respect to California least tern nesting in Los Angeles Harbor. The LADH, CDFG, FWS, and COE first entered into the MOA in 1984 (LAHD Agreement 1308), and renewed the MOA in 1991, 1994, 1997, 2000, 2004 and 2006.

RECITALS OF FACT

The MOA is entered into based upon the following facts:

1. The California least tern (*Sternula antillarum browni*) is a listed state and federal endangered migratory bird, which has used Terminal Island and Pier 400, within the Port of Los Angeles, for nesting and propagation of the species. The current nesting site at Pier 400 has been among the top five breeding colonies in the State.

2. The LAHD is the local agency primarily responsible for the management and development of the port lands and facilities. In pursuing such responsibilities the LAHD establishes port land use needs and initiates appropriate planning and implementation measures.

3. The FWS and CDFG have as their primary responsibilities, in this matter, the conservation, protection, and enhancement of the California least tern population and its habitat. In pursuing such responsibilities, in this matter, the CDFG and FWS recommend the requirements and parameters for successful propagation of the California least tern within the Port of Los Angeles.

4. The COE has as its primary responsibilities the regulation, planning and technical matters pertaining to dredging, filling, and other measures related to the conservation, development, and management of water and related land resources in the harbor area. In pursuing such responsibilities, the COE is obligated by law to ensure that its actions will not jeopardize an endangered species and to use its authorities, within the limits of its powers and the law, for the conservation of endangered species.

5. The LAHD recognizes that it is obligated to provide for the protection and preservation of the California Least Tern Nesting Site. Currently the LAHD fulfills this obligation by providing a fifteen (15) acre nesting site in the area of Pier 400 outlined in Exhibit D. This agreement supersedes LAHD Agreement 2474 which was based on the following documents: Exhibit A Endangered Species Act, Section 7 Consultation, Biological Opinion dated September 24, 1992; Exhibit B, LAHD Resolution No. 4354; and Exhibit C, U.S. Army Corps Permit No. 88-011-CC (modified July 1, 1994). These documents are included herein by reference.

It is agreed by all undersigned parties that the California least tern site protection measures in this agreement should adequately guard the welfare of the California least tern and that other LAHD property, including other portions of Pier 400, can be used for Port purposes without such nest site encumbrances. However, the LAHD is obligated to avoid harm to nesting California least terns from activities on LAHD properties when nesting occurs outside designated areas. This MOA does not obviate the need to satisfy existing state and federal legislation regarding proposed LAHD landfills.

6. All undersigned parties agree that, beginning in ____ 2012, a fifteen (15) acre or mutually agreed upon nesting site or sites on Pier 400, will be designated, prepared, and protected for the successful nesting use of the California least tern.

7. The designated fifteen (15) acre nesting site on Pier 400 and any new nesting site may be reconfigured, relocated, or relinquished in accordance with the terms and conditions of this agreement. Reconfiguration and relocation efforts will be kept to a minimum.

TERMS AND CONDITIONS

For and in consideration of the foregoing Recital of Facts and the mutual covenants and conditions hereinafter set forth, the LAHD, CDFG, FWS, and the COE agree to the terms and conditions as follows:

1. Location - a fifteen (15) acre or mutually agreed upon nesting site(s) as shown on the attached Exhibit D (by reference made a part hereto) will be designated on Pier 400 or other FWS approved locality for the California least tern.

2. Nest Site Conditions - the site(s) will:

a. be reasonably level (slope less than 5%);

b. have a substrate composed of sand which is light in color, clean, and a gradation between beach sand and river-run sand;

c. be within 1.5 miles from shallow water (depth 20 feet or less);

d. be devoid of structures and essentially barren of plant material unless such plant material is deemed beneficial by FWS and CDFG, for protection of eggs and chicks; and

e. be generally square to rectangular (not less than three hundred fifty (350) feet wide at the narrowest point unless otherwise approved by all parties).

3. Timing of Preparation - the nesting site will be prepared in accordance with this agreement prior to 1 April of each year, except for clearing of vegetation at the site, which will occur

prior to the arrival of the least terns and no later than April 15. The site will be secured in that condition until 1 September unless released earlier for other harbor uses by FWS/CDFG.

4. Nest Site Management - The FWS/CDFG will evaluate whether the terms and conditions set forth under nest site conditions, timing of preparation, and protection have been met by the LAHD under the Terms and Conditions of this MOA. Protective shelters may be placed after the onset of nesting at the discretion of FWS/CDFG. Decoys may be placed on a designated, or relocation nesting site with approval of FWS, CDFG and LAHD.

5. Protection - The level of site protection will be determined by the potential threat of disturbance. Protection may vary from barricades, signs, or ropes to complete fencing. The nest site protection measures will be shown on attached nest site location Exhibit D (or its annual update). The level of protection will be agreed upon by all undersigned parties, but is the responsibility of FWS and CDFG to recommend appropriate and feasible protection measures, and LAHD to implement such protection measures.

6. Buffering - The intent of this MOA is not to encumber more than fifteen (15) acres. However, certain adjacent port land uses may cause disturbance to California least tern nesting activities and may warrant additional buffering measures. These additional buffering measures will be considered and implemented as appropriate on a case-by-case basis with the approval of all parties.

7. Other Uses of Nesting Sites - The LAHD may use any designated California least tern nesting area for any purpose:

a. during the months of September through March, the non-nesting season, or

b. if any nesting site is released by FWS/CDFG for other Port uses due to completion of or absence of California least tern nesting activities before 1 September of each year. The site will be restored prior to the next nesting season in accordance with this MOA.

8. Activities - All parties concur that any activities during the breeding season in the nearby shallow waters that are likely to disrupt the feeding activities of the California least tern should be avoided except as provided through Incidental Take provisions of the federal Endangered Species Act.

9. Communications - Direct and expeditious communications are essential.

a. The following persons will serve as points of contact for the undersigned parties:

(1). LAHD - Director of Environmental Management for major issues and a designated representative for day-to-day issues;

(2). CDFG - CDFG - Regional Manager, South Coast Region, for major issues and a designated representative for day-to-day issues;

(3). FWS - Field Supervisor, Fish and Wildlife Office, Carlsbad, for major issues and a designated representative for day-to-day issues, and

(4). COE - Chief, Planning Division for major issues and a designated representative for day-to-day issues.

The following communications, at a minimum, will occur:

b. The LAHD at its earliest opportunity will communicate any activities that will affect directly or indirectly any designated California least tern nesting site and when appropriate, will prepare a revised nest site location Exhibit D for approval and incorporation into this agreement.

c. At the request of FWS or CDFG, a meeting of the representatives of the undersigned, convened by the LAHD, will be held prior to February of each year to discuss the specific terms and conditions for the coming California least tern nesting season and any outstanding problems or nest site changes, to be shown on revised Exhibit D, that may be needed in the general terms and conditions. The LAHD will distribute a summary of the meeting to the participants and notify the undersigned within ten (10) working days by letter of any proposed LAHD changes and/or any FWS/CDFG recommendations.

d. As required, the LAHD will be notified by FWS/CDFG regarding access requirements of authorized California least tern researchers for that season. Access to the nesting site shall be controlled by the LAHD, and access by

authorized California least tern researchers shall be facilitated. In accordance with project specific consultations[1], the LAHD shall provide a monitor of the nesting site meeting the requirements of FWS and CDFG.

e. Any of the undersigned parties will notify all parties upon sighting California least terns and continue to exchange information regarding California least tern presence and activities in San Pedro Bay.

f. The LAHD will contact and obtain permission from FWS/CDFG by letter, email, or telephone when the California least tern breeding activities at Pier 400 have concluded and LAHD wishes the nesting site to be released for other harbor uses before September 1st of each year.

g. The FWS/CDFG or LAHD will provide to the undersigned parties available summaries or reports of California least tern nesting activity in LAHD during the nesting season and the names of the individuals who conducted the monitoring of the nesting activity.

10. Disagreements - if any disagreements or unforeseen problems arise at any time, but especially during the breeding season, the designated staff representatives will notify their respective points of contact and a meeting will be convened immediately to resolve the problems.

11. Responsibilities and Costs - The LAHD is responsible for designating, preparing, and protecting California least tern nesting site(s) in accordance with this MOA, and will provide for monitoring. Effective predator management has been proven to be an important aspect of least tern nesting success and is required by the terms of this agreement. Therefore, the LAHD will provide for predator management and, as the landowner of the nesting site, will obtain a depredation permit from FWS and adhere to the provisions within. The costs of these activities will be borne by the LAHD. The FWS and CDFG are responsible, at their expense, for recommending actions necessary for successful nesting activities at Pier 400. If the recommended actions are acceptable to all parties, the LAHD will bear the costs of implementing these recommendations. The COE will assure, within the limit of its power and

[1] Refers to: COE. 2009. *Port of Los Angeles Channel Deepening Project Final Supplemental Environmental Impact Statement/Supplemental Environmental Impact Report;* COE. 2000. *Final Supplemental EIS /Supplemental EIR for the Port of Los Angeles Channel Deepening Project. Los Angeles, CA*; and, COE. 1992 *Final EIS/EIR for the Deep Draft Navigation Improvements, Los Angeles and Long Beach Harbors, San Pedro, California.*

authority, compliance with conditions of this MOA regarding designation, preparation, and protection of the nesting area.

12. Alteration of Site(s) - The site(s) may be reconfigured, relocated, or relinquished only with the mutual agreement among the FWS, CDFG, and LAHD.

- Reconfiguration - allows for boundary changes of a present nesting site, but the site remains in the same locale.

- Relocation - is the physical movement of a site to a new location.

- Relinquishment - is the removal of all requirements for the preparation, protection, and management of a site for California least tern nesting.

a. A site may be reconfigured, within the same general area, with a mutually agreed upon overlap of the prior year's nesting area.

b. If a site is to be relocated and the relocation site has not been used by the California least tern for successful nesting in the prior year, the relocation site and the original site will both be prepared in accordance with the terms of this agreement. One of these sites may be less than fifteen (15) acres but not less than seven and one-half (7.5) acres; the other site shall be fifteen (15) acres.

A designated Pier 400 site may be relinquished at the request of LAHD if nesting was not successful and if there has been successful nesting for one (1) year at another site on Pier 400 which could then become the designated fifteen (15) acre nesting site or two sites totaling 15 acres. If these guidelines are not approached, then FWS and CDFG, considering all factors associated with past and future nesting success on Pier 300 and Pier 400, may conclude that a designated site may be relinquished.

c. For the term of this agreement, the following sequence of relocation/reconfiguration and nest site preparation shall occur:

(1) For the 2012-2016 nesting seasons the designated nesting site of approximately 15 acres shall be prepared at the Pier 400 site (Exhibit D-1 and D-2).

d. Nesting shall be defined as the laying of eggs. A current guideline for "successful nesting" constitutes:

(1) twenty (20) or more pairs of California least terns nesting, (2) with a fledgling success of between 0.5 and 1.0 or more per nesting pair. If one or both of the criteria of the guideline are not approached, then FWS and CDFG, considering impacts of events beyond the control of the parties to this agreement, may still conclude successful nesting has occurred.

13. Termination - Should any site become the only site utilized for nesting, this site will be protected and maintained as long as the law requires or until such time as no nesting occurs for four (4) consecutive years, and it is mutually agreed to by COE and FWS that protection and maintenance measures can be abandoned.

14. Term of the Agreement - This MOA shall be in full force and in effect when signed by all four parties. The MOA may be modified at any time with the consent of all the signatories or it may be terminated upon a thirty (30) day notice with the consent of all the signatories. Modification of this agreement may also be effected through consultation pursuant to Section 7 of the federal Endangered Species Act. The term of this agreement is for five (5) years. After five (5) years (2012-2017), if there still remains the requirement for preparation, protection, and management of a California least tern nesting site in the Port of Los Angeles, this agreement may be renewed or a new agreement may be consummated.

15. Executed Counterparts. The signature page of this Agreement is being executed in counterparts. When all parties have signed, all executed counterparts taken together shall constitute one and the same instrument. The LAHD shall be responsible for receiving and retaining the originally executed signature pages of each party, for dating the Agreement as of the latest date upon which it is executed as among the signatories thereto, and for providing a copy of the dated executed agreement to each of the parties.

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In witness whereof, the undersigned have executive this MOA as of the date when the last of the undersigned has signed and dated this MOA.

THE CITY OF LOS ANGELES, BY ITS BOARD OF HARBOR COMMISSIONERS

BY:

_____ _____

GERALDINE KNATZ, Ph.D.
Executive Director Date

ATTEST

_____

THE CALIFORNIA DEPARTMENT OF FISH AND GAME

_____ _____

ED PERT
Regional Manager, Region 5 Date

THE U.S. FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR

_____ _____

JIM A. BARTEL, Ph.D.
Field Supervisor, Carlsbad Date

THE U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT

_____ _____

R.MARK TOY, P.E
Colonel, US Army Date
Commander and District Engineer

United States Department of the Interior

FISH AND WILDLIFE SERVICE

FISH AND WILDLIFE ENHANCEMENT
SOUTHERN CALIFORNIA FIELD STATION
2730 Loker Avenue West
Carlsbad, California 92008

September 24, 1992

Colonel Robert VanAntwerp
District Engineer
Corps of Engineers, Los Angeles Dist.
P.O. Box 2711
Los Angeles, CA 90053

Re: Biological Opinion on Los Angeles Harbor Development Project
(1-6-92-F-25)

Dear Colonel VanAntwerp:

This Biological Opinion responds to your request for formal consultation with the Fish and Wildlife Service (Service) pursuant to section 7 of the Endangered Species Act of 1973, as amended (Act). Your request was dated February 5, 1992 and received by us on February 13, 1992. At issue are the impacts that the Los Angeles Harbor dredging and landfill construction by the Corps of Engineers (Corps) and/or Port of Los Angeles (Port) may have on the California least tern, Sterna antillarum browni, and the California brown pelican, Pelecanus occidentalis californicus, both federally listed endangered species.

An interrelated project feature, the offsite habitat mitigation at Batiquitos Lagoon, is not discussed in this Biological Opinion. The Service and Corps have previously established that the Batiquitos Lagoon project would not adversely impact the least tern, brown pelican, or other listed species, if the project is carried out in the manner specified in the Record of Decision for the Final Environmental Impact Statement and Special Conditions to Corps Permit 88-217, issued May 7, 1992. As other required offsite coastal wetland mitigation projects are identified and considered for implementation pursuant to this project, additional consultations may be necessary.

This Biological Opinion was prepared using information: contained in your request for consultation; a November 1, 1990, Biological Assessment revised June 25, 1992; the draft Environmental Impact Statement June 1992; draft final EIS September 1992; Biological Opinions dated April 3, 1979 (1-1-78-F-19) and August 30, 1984 (1-1-83-F-6R); 1991 California Least Tern Nesting Site Memorandum of Agreement among the Service, Corps, California Department of Fish and Game (Department), and Port; obtained during informal consultation between our staffs; and contained in our files. The Corps, Port, and the Service have been intermittently conducting informal consultation on previous iterations of this project proposal for several years. Formal consultation has actually been initiated several times, but each time terminated before completion, primarily due to revision of project descriptions. The presently

EXHIBIT A

proposed project description, including proposed mitigation measures, summarized and evaluated herein, are those supplied in the September 22, 1992 draft Final Environmental Impact Statement.

Biological Opinion

It is the opinion of the Service that the proposed project is not likely to jeopardize the continued existence of the California least tern or California brown pelican. No critical habitat designations have been made for either species. Therefore, no critical habitat would be modified.

Description of the Proposed Action

By Public Law 99-662, November 17, 1986, the Water Resources Development Act of 1986, the Corps of Engineers was authorized, subject to a favorable report, to construct and mitigate deepened navigation channels and creation of 800 acres of land in San Pedro Bay, for the Ports of Los Angeles and Long Beach. The Corps has evaluated the channel and landfill development features in increments. In 1991, the Port of Long Beach withdrew as a local sponsor. The 1992 proposed action includes dredging of navigation channels, turning basins, 582 acres of landfill with access corridor (described as Increments 2-5), onsite endangered species mitigation in Los Angeles Harbor, and offsite fish and wildlife mitigation measures.

The total areas of proposed dredging, landfill, and within-harbor mitigation areas are shown on Figure 1. The proposed 128 acre within-harbor endangered species shallow water area adjacent to the San Pedro Breakwater is shown in more detail in Figure 2. (An additional 8 acres of shallow water replacement would be constructed adjacent to the access corridor, totalling 136 acres.) Each dredge increment has an associated landfill (Increment 2, 157 acres of landfill and the access corridor; Inc. 3, 337 acres; Inc. 4 and 5, 77 acres).

Two different implementation schedules have been proposed, one by the Corps and one by the Port, Figure 3. The Corps proposes to construct Increments 2 and 3 between 1994 and 1998, and Increments 4 and 5 between 2004 and 2005. within-harbor mitigation would be done in two parts separated by 10 years (1994 and 2004). The Port schedule proposes Increments 2, 3, 4, and all within-harbor mitigation for construction between 1994 and 1998, and Increment 5 between 2001 and 2003. In either case, the shallow water within-harbor mitigation would be constructed before the water area it replaces is dredged or filled.

The access corridor would be constructed at the same time as Increment 2, but is proposed to receive further design scrutiny to determine the extent, type, location of culverts or trestle openings necessary to allow continued water circulation. Similarly, the proposal to remove the existing Seaplane Anchorage jetty will be further evaluated for the expected benefits of avoiding stagnating water conditions.

The actual location of construction contractor staging areas have not been designated, nor are construction operations or methods of construction specifically established. However, generally known procedures, methods, and

equipment would be employed. Barges, and barge mounted cranes and heavy equipment would place rock transported from quarries on Santa Catalina Island. An electric hydraulic dredge would be employed to dredge channels, with discharges into the landfill areas. A hopper dredge is proposed for dredging the channels outside the outer breakwater with discharges into the landfill areas. Hence, for considerable periods, until the landfill dikes are raised to the waters surface, these discharges would be into water bodies still connected to and subject to water circulation patterns of the outer harbor.

The Port and the Corps have now also proposed several other measures to detect, avoid, or reduce impacts to the endangered least tern or brown pelican during project implementation, in addition to the within-harbor shallow water habitat replacement measure and water circulation design considerations mentioned above.

The existing California least tern nesting area would continue to be protected and managed in accordance with the interagency agreement. The Port/Corps will assure that monitoring and management of the least tern nesting area will be conducted by a qualified biologist acceptable to the Service and Department, for up to one year following completion of the proposed project construction. The extent of the turbidity plume resulting from the discharges of dredge material will be monitored April through August, and will not be allowed to extend into the designated shallow water areas next to Pier 300 or San Pedro Breakwater in this time frame. Driving of piles associated with the construction of the access corridor will not be conducted April through August without the concurrence of the Service and Department. Construction staging areas will not be located within 200 feet of the least tern nesting area, April through August. Channel bottom sediments that are contaminated with DDT and other contaminants will be removed and disposed of in a manner that precludes their reintroduction to the marine environment.

Effects of the Proposed Project on the Listed Species

Species Account

California Least Tern

California least terns are the smallest of the North American terns, measuring about 9 inches long, with a wingspan of about 20 inches. Males and females look alike with a black cap, white wedge at the forehead, gray wings with black tips, yellow legs, and black-tipped yellow bill. Immature birds have darker plumage and a dark bill with distinctive white heads and dark eye stripe.

Once widespread and common along the central and southern California coast, to the extent of being described as numberless on the beaches of Los Angeles County, the California least tern population declined to a known low point of between 623 and 763 breeding pairs around 1973. The loss of nesting and breeding season feeding habitats, as a result of human activities, is largely responsible for the decline. The California least tern has been on both the State of California and Federal endangered species lists since 1970.

Since then, because of a variety of management efforts (particularly nesting and foraging area protection) made possible by its designation as an endangered species, the least tern has increased in abundance to an estimated California breeding population of about 1,830 pairs in 1991 (Figure 4). The state total has fluctuated over the years in response to a variety of factors. Two successive years of decline in the breeding population in 1983 and 1984, for example, led to an estimated breeding population of 966 breeding pairs in 1984, following a former high of 1,025 pairs in 1982. This decline is most probably attributable to short supplies of prey fish during and after the El Nino oceanographic condition of 1982-83.

These migratory birds usually arrive in California from Central and South America by late April and complete their breeding cycle by the end of August. The discontinuous breeding range of the California least tern in the U.S. extends from the Mexican border to San Francisco Bay with the majority of birds nesting in southern California. Least terns also nest in Baja California, Mexico. Unfrequented sandy beaches close to estuaries and coastal embayments have traditionally served as nesting sites for the least tern. Human use of beaches for recreational, residential, and industrial development has severely diminished the availability of suitable least tern nesting areas. In recent years, many non-beach sandy surfaces in coastal areas have been successfully utilized by least terns for nesting.

The nest of the California least tern is a simple scrape or depression in the sand that the birds often adorn with small fragments of shell or pebbles and sometimes wood. One to 4 eggs are laid, usually 2, and incubated usually for 20 - 25 days with a mean time of about 21 days. This is followed by an approximately 3 week period of the adults tending the flightless but quite mobile chicks. Most of the initial nesting attempts are completed by mid-June. A second wave of nesting often occurs from mid-June to early August. These are renests after initial failures and second year birds nesting for the first time.

Least terns feed exclusively on small fishes captured in shallow, nearshore waters, particularly at or near estuaries and river mouths. After their eggs hatch, breeding adults catch and deliver small fish to the flightless young. The young begin to fly at about 20 days of age, but continue to be fed and are taught how to feed by their parents for some time after fledging. Reproductive success is, therefore, closely related to the availability of undisturbed nest sites and nearby waters with adequate supplies of appropriately sized fishes.

Terns typically employ a shallow plunge dive technique to capture fish immediately below the water's surface. Adults usually dive from a hover but occasionally dive directly from flight. Most foraging activity is conducted within a few miles of the colony.

California least terns are opportunistic in their foraging strategy and are known to take many different species of fish. However, they seem to select fish based on certain morphological characteristics. Prey items are generally less than 9 cm in length and have a body depth of less than 1.5 cm. Thirty-seven different species of fish dropped at the Venice Beach nesting

site were recorded. At Venice Beach and Huntington Beach, in 1978-81, northern anchovy Engraulis mordax and silversides including topsmelt Antherinops affinis, jacksmelt Atherinopsis californiensis, and California grunion Leuresthes tenuis composed most of the samples of fish found dropped in the nesting areas as well as most of the actually documented food items. Very small or soft scaled species such as gobies (especially Clevelandia ios, Quietula y-cauda, and Ilypnus gilberti) are under represented in dropped fish surveys.

Once their eggs hatch, the adult terns must feed their young as well as themselves. The adults shift their foraging strategy when chicks hatch in order to obtain the very small sized fish for nestlings. The adult terns begin foraging nearer the colony and especially in water areas with an abundance of small prey fish, in estuarine shallows, for example.

The adult tern does not dismember larger fish in order to feed its small chick. The adult captures a fish and disables it by shaking, and delivers it whole to the chick. A small, newly hatched least tern chick cannot swallow a fish that is too large or relatively deepbodied. The chicks can only eat small, elongate fish, but if the parent cannot supply them, the chick will perish. Therefore, despite an abundance of larger fish that may be preferred food for an adult least tern, an inadequate supply of smaller fish will reduce chick survival.

After fledging, the young terns do not become fully proficient at capturing fish until after they migrate from the breeding grounds. Consequently, parents continue to feed their young even after they are strong fliers. Nearby Machado Lake in Wilmington is used as a post-breeding foraging area sometimes frequented by juvenile least terns. This lake is not known to be used by adult least terns while foraging for fish to feed chicks still confined to the Terminal Island nesting area, however.

Conflicting uses of southern California beaches during the tern nesting season have led to isolated, small colony sites that are protected by fences, water, vigilance, and control of predators. The terns have been artificially concentrated within fenced areas, often off to one side of heavily used public beaches or on tiny man-made islands, since beach front property is at such a premium for human usage. At Terminal Island, large coke piles loom next to the tern nesting area.

The adults, eggs, and young are thus confined during this crucial period rendering them susceptible to major problems with predators, such that the control of predators constitutes one of the most crucial management responsibilities. Known problem predators of least tern adults, young, or eggs include the red fox, house cats and dogs, American Kestrel, American Crow, Burrowing Owl, Loggerhead Shrike, Common Raven, coyote, and others.

Episodic losses have also been attributed to cold, wet weather, extreme heat, dehydration and starvation, unusually high surf or tides, and human disturbance. Human disturbance is a primary problem at several colonies. Additionally, an "El Nino" warm sea current phenomenon in 1982 diminished fish populations throughout the southern California bight, causing a drastic

reduction in least tern breeding success. This resulted in the lowest annual production of fledged young on record and probable poor survival of the young that were fledged. In recent years, the State-wide breeding population has increased. In 1991, there were 34 breeding sites in the state and the number of breeding pairs reached 1,830. Although the breeding season census reports are not yet completed, another El Nino condition has occurred during the 1992 breeding season, perhaps adversely affecting the recovery from near extinction of this species.

The present day nesting site for the California least tern on Terminal Island is located next to the former Seaplane Anchorage and constitutes a very important one of only six sites still used in Los Angeles and Orange Counties (Figure 5). This nesting site is protected and managed in accordance with a Memorandum of Agreement among, the Service, Port, Corps, and the California Department of Fish and Game (Department). In recent years, least tern breeding activity at Terminal Island has been plagued by disturbance primarily by crows.

The shallow water area next to Pier 300 and the Navy Mole was made shallower in the early 1980's as a replacement for least tern feeding area losses that resulted when Pier 300 was constructed. In addition, at the urging of the Service, the Port attempted to gather additional and more accurate information on where and how the least tern foraged in this and other waters of the harbor. That work reaffirmed the value of relatively shallow (20 feet deep or less) water areas of the harbor to the least tern. (The Port's biological baseline surveys have verified the fish nursery value of these shallower areas. That is, these shallower water areas contain abundant and small fish during the least tern breeding season.) The least tern foraging studies also indicated that while the adult least tern will fly farther to capture a large fish for itself, it will forage for smaller fish nearer the breeding colony when feeding its chicks. Most of these shallow water areas are immediately adjacent to the least tern nesting area on Terminal Island, but also include the inner Cabrillo Beach water area at the harbor's west end.

California brown pelican

The California brown pelicans (Pelecanus occidentalis californicus) breeding on offshore islands of southern California and northwestern Baja California experienced widespread pollutant-related reproductive failures during the late 1960's and early 1970's. Because of these failures, and other serious declines in the eastern U.S., on October 13, 1970, the brown pelican was classified as endangered by the Service (35 FR 16047). The Service published a Recovery Plan for the Pacific coast, or California, subspecies in 1983. Two decades later, the ecological effects of DDT contamination still have not been entirely eliminated, and incidences of eggshell thinning still occur, although greatly reduced since the early 1970's. Acute contamination of the Southern California Bight (Bight) water mass by DDT compounds has thus been replaced by a low-level, chronic, contamination. Complete recovery of the California brown pelican reproductive rates from past pesticide contaminations may still be years away.

The current breeding distribution of the California brown pelican ranges from the Channel Islands of southern California southward (including the Baja

California coast and the Gulf of California) to Isla Isabela, Islas Tres Marias off Nayarit, Mexico and Isla Ixtapa off Acapulco, Guerrero, Mexico. Between breeding seasons, pelicans may range as far north as Vancouver Island, British Columbia and south to Central America. Being a plunge-diver, the pelican requires relatively clear water to visually locate their prey from on the wing, therefore restricting its distribution to tropical and subtropical waters. Largest numbers of pelicans (most of which derive from Mexican colonies) appear in California during late summer and fall. Year-to-year post-breeding dispersal patterns of brown pelicans are however, largely determined by oceanographic conditions, which influence anchovy availability.

Sightings of feeding pelicans occur at sea off southern California as far as Cortes Bank (about 180 km west of San Diego) and to 88 km off central California. Feeding flocks generally include 10-50 birds, and occur within 20 km of shore and in waters less than 100 m depth.

The maximum breeding population size of the California brown pelican throughout its entire range was estimated in the 1983 Recovery Plan to approximate 55,000 to 60,000 pairs. Recent observations indicate that this estimate has remained relatively stable, although information from the Mexican colonies represent only crude estimates.

The 1983 Recovery Plan estimated that approximately 68% of the California subspecies are located in the Gulf of California, 16% along the Mexican coast off Sinaloa and Nayarit, 10% off the southwestern coast of Baja California, and approximately 6% on islands in the southern California Bight. The southern California Bight population was hit hardest by the DDT problems in the 1960's and currently appears to be recovering from these declines. The U.S. colonies are currently the only colonies which are protected from human disturbances.

The major Bight colonies have been on West Anacapa Island, Santa Barbara Island, California, and Isla Coronado Norte, Baja California. The Recovery Plan concluded that yearly variations in historical colony size on both Anacapa and Los Coronados, as well as overall Bight population size, have most likely been caused by food availability. Recent El Nino oceanographic events and the resulting unavailability of prey fish, appear to have adversely affected the recovery of the brown pelican.

Habitat needs for the California brown pelican identified in the Recovery Plan as essential included: (1) a disturbance and predator-free nesting area, (2) offshore habitat with an adequate food supply, and (3) appropriate roosting sites for both resident and migrant pelicans. Offshore waters within 30-50 kilometers of a breeding colony are critical to pelicans for obtaining food supplies, especially when young are being fed. These waters also are important to wintering pelicans and to newly-fledged young when they begin to capture their own food.

Once fledged, it takes a long-time (up to five years) before a young pelican reaches effective breeding age. This long development period is believed to provide time to improve fishing skills and learn other things necessary to maximize survival in a changing and often stressful environment. Although

pelicans are strong fliers, they have wettable plumage and must return to land each night.

Through bird surveys, the brown pelican is known to regularly be one of the most abundant birds in San Pedro Bay. While not a breeding site or within a zone of influence of a breeding site, the harbor area provides two principal habitat requirements for the brown pelican: abundant and available prey fish, and roosting areas. The three sections of the outer breakwater are relatively heavily used by brown pelican for roosting. Foraging studies focussing on the brown pelican have not been conducted in a manner that would allow discrimination of food supply value of different water areas within and outside the harbor, however.

Analysis of Impacts

Several previously conducted consultations, regarding proposed Los Angeles Harbor developments in the same area as the proposed project, had resulted in Biological Opinions that concluded loss of shallow water foraging areas and/or absence of nest site protection measures at Terminal Island would likely jeopardize the continued existence of the California least tern. The then-identified reasonable and prudent alternative that would avoid jeopardy included nest site protection measures and replacement of lost shallow water feeding area adjacent, acre for acre and in kind. Since that time, the interagency agreement addressing the protection and management of the nesting area was completed and more recently renewed. Also, discussions between the Service, Department, Port, and occasionally the Corps, continued regarding avoidance, minimization and compensation of within-harbor shallow water foraging area impacts. A 1987 planning aid report from the Service to the Corps discussed this issue.

The shallower areas of the harbor are known to support larger numbers of smaller fishes than other water areas of the harbor. These shallower areas are thought to be particularly important to successful least tern reproduction at Terminal Island. Observations of foraging behavior affirms the least tern's reliance on the shallower areas during the rearing of chicks. Outright loss of these water areas through fill, or through deepening which reduces the abundance of small fish in such areas, or through chronic surface turbidity that obscures prey fish, reduces prey fish availability to the least tern and diminishes reproductive success. Locally insufficient food supplies can lead to reduced clutch size, higher chick and fledgling mortality, and even nest site abandonment.

Replacement of such shallow water areas lost to fill or dredging is considered feasible by partial filling of other deeper water areas of the harbor. Such actions have been considered since the late 1970's, with the existing shallow water area east of Pier 300 being one such modified area. The proposed locations for replacement of shallow water area losses due to the subject project, inside the San Pedro Breakwater (128 acres) and next to the access corridor (8 acres), are feasible. Some of the inner Cabrillo Beach end of Los Angeles Harbor is already shallow, about 2.5 miles from the nesting area, and has been used by foraging least terns. Expansion of the shallow water habitat in this area should offset least tern foraging area. Construction of these

replacement feeding areas is to be completed before the original area is degraded and during the time when the least tern is not present at the breeding site, September through March.

Turbid surface waters can obscure prey fish from birds such as the least tern and brown pelican, which plunge into surface waters from low altitude after spotting a prey fish. Chronic or wide-spread surface turbidity in important foraging areas can completely prevent such birds from feeding altogether. The shallower water areas are considered to be the most important for fish eating birds, especially the least tern. Consequently, protected from such turbid conditions would be provided by monitoring the extent of such a plume with the objective being to prevent its being swept by currents into the shallow water foraging areas.

The proposed location of the access corridor (a linear fill with unspecified culvert or trestle sections) poses the potential of subdividing the existing shallow water area into smaller and more isolated bodies of water. These deadend pockets of water, coupled with the disruption of the existing circulatory gyre of water in the outer harbor due to the landfill suggests that the habitat conditions of these remaining water bodies would be adversely changed. Numerical modelling of the specific designs, with the aim of optimizing water circulation in the shallow water area by design modifications to the access corridor, is proposed.

Construction staging areas are not expected to be large or numerous, but could adversely affect the least tern nesting area though equipment noise, lights, dogs or cats, or conditions that attract crows. The actual locations of such staging areas have not been specified, although it is proposed that none would be closer than 200 feet from the designated nesting area. It is also unknown, what number or location of crew boats, barges, cranes, or temporary docks would be considered. The shallow water feeding areas could be degraded for least tern foraging were they to become excessively clutter with barges, floating pipe, barge mounted heavy equipment, boats, temporary dock, and the like.

The brown pelican uses the outer breakwaters a great deal for roosting. This activity is essential to the pelican, as it must dry and maintain its plumage. No action associated with the proposed project appears to influence the value of the breakwaters for pelican roosting. The construction of the shallow water replacement area inside the San Pedro Breakwater may cause some short term, localized disturbances due to the nearby operation of barge-mounted equipment during construction. Away from breeding colonies, the pelican is considered a wide-ranging forager. The harbor undoubtedly provides a prey base for the brown pelican but is not thought to be a singularly important food source. Construction of the shallow water replacement area and protection from turbidity may further reduce the minor adverse effects of brown pelican feeding area losses elsewhere in the harbor. Offsite mitigation of landfill impacts that involve creation or restoration of tidally influenced coastal wetlands, such as Batiquitos Lagoon, will further offset harbor foraging area losses, albeit elsewhere in the brown pelican's foraging range.

The Service believes the impacts described above will not jeopardize the continued existence of either the California least tern or the California brown pelican. We present this conclusion for the following reasons:

1. The nesting area for the California least tern at Terminal Island will be protected and managed. The nesting area and shallow water foraging area will be monitored and protected from construction impacts of the proposed project. There will be no net loss of essential shallow water feeding areas or quality for the least tern in the harbor.

2. The essential roosting areas for the brown pelican on the outer breakwaters will not be disrupted by the proposed project. The relatively minor feeding area losses for the brown pelican will be offset by onsite and offsite habitat replacement measures and shallow water turbidity will be avoided.

Cumulative Effects

Cumulative effects are those impacts of future non-Federal (State, local government, or private) activities on endangered or threatened species or critical habitat that are reasonably certain to occur during the course of the Federal activity subject to consultation. Future Federal actions are subject to the consultation requirements established in section 7 of the Act and, therefore, are not considered cumulative in the proposed project.

The Service is increasingly concerned about the apparently increasing density and occurrence of crows and the nonnative red fox along Southern California's coastline. These animals seemingly adapt well to urbanized conditions, are prolific breeders, and can severely damage breeding activity of the least tern by preying on eggs and chicks.

Incidental Take

Section 9 of the Act prohibits the take of listed species without special exemption. Taking is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Under the terms of section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take statement.

The Service anticipates that the following could be taken as a result of this proposed action.

1. One California least tern in the form of direct mortality through accidental death.

2. One California brown pelican in the form of direct mortality through accidental death.

If, during the course of the action, the amount or extent of the incidental take limit is exceeded the Federal agency must reinitiate consultation with the Service immediately to avoid violation of section 9. Operations must be stopped in the interim period between the initiation and completion of the new consultation if it is determined that the impact of the additional taking will cause an irreversible and adverse impact on the species, as required by 50 CFR 402.14(i). The Corps should provide an explanation of the causes of the taking.

The measures, terms, and conditions described below are nondiscretionary, and must be undertaken by the agency or made a binding condition of any grant or permit, as appropriate.

Reasonable and Prudent Measures

The Service believes that the following Reasonable and Prudent Measures are necessary and appropriate to minimize incidental take.

1. No activity related to the proposed project shall cause disturbance to brown pelican loafing/roosting behavior on the outer breakwaters.

2. The existing California least tern nesting area shall be protected and managed in accordance with the completed agreement, signed by the Corps, Port, Department, and Service.

3. Least tern breeding activity, turbid water conditions due to project construction, and staging area location and operations shall be monitored in Los Angeles Harbor, with appropriate corrective action taken so as to avoid degradation or harm to least tern nesting areas and shallow water foraging areas.

4. Elimination or degradation of shallow water feeding area by dredging and filling shall be limited to the proposed 123.5 acres (111 acres deepened south of Pier 300, and 12.5 filled in the access corridor) and shall be replaced in advance of loss by construction of 136 acre of shallow water habitat at the San Pedro Breakwater and next to the access corridor.

5. Final design of the access corridor and Seaplane Anchorage jetty removal shall optimize water circulation conditions in this remaining shallow water area through incorporation of culverts and/or trestle sections.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Corps is responsible for compliance with the following terms and conditions, which implement the reasonable and prudent measures described above. These Terms and Conditions are as follows:

1. Specific construction contractor(s) shall be advised to avoid operations or activities on or immediately adjacent to the outer breakwaters, so as to avoid disturbance to brown pelicans roosting there. Project related construction inspectors, engineers, and agents of the Port and Corps shall also be so advised.

2. The existing interagency California least tern nesting area agreement shall be adhered to, and renewed, as needed, by mutual agreement of the Corps of Engineers, Port of Los Angeles, Fish and Wildlife Service, and California Department of Fish and Game.

3. The Port/Corps shall construct and maintain 136 acres (128 inside the San Pedro Breakwater and 8 acres next to the access corridor) of shallow water habitat less than 20 feet deep in the location and manner shown on Figures 1 and 2, in advance of the specified shallow water area losses and only during the months of September through March.

4. During the months of April through August:

   a) The Port/Corps shall assure the monitoring of the California least tern nesting activities on Terminal Island by a qualified biologist acceptable to the Service and Department, with the duties specified in the final Environmental Impact Statement, Sections 4D-6 and 7, especially regarding, nest site monitoring, education of construction personnel, predator control, turbid water conditions in shallow water areas.

   b) Visible surface turbidity from dredge discharges shall be prevented from entering the shallow water areas.

   c) Impact pile driving along the access corridor shall not be conducted without the written concurrence of the Service and the Department.

   d) No construction staging area shall be nearer than 200 feet from any least tern nesting area. If located in the vicinity of the nesting area, dogs or cats shall not be allowed, and lights shall be shielded to prevent the casting of light into the nesting area. Storage or maintenance of waterborne equipment in the Pier 300 shallow water area or water area of the Seaplane Anchorage shall be minimized.

5. Water circulation modeling shall be conducted and the results utilized to determine the final design features (exact alignment, location, number, and size of culverts, trestle length) of the access corridor and the Seaplane Anchorage jetty so as to optimize water circulation in the Seaplane Anchorage and remaining Pier 300 shallow water area.

Disposition of Sick, Injured, or Dead Specimens

The Service's Carlsbad Office (619) 431-9440 or Law Enforcement Office in Torrence (310) 297-0062 is to be notified within three working days should any listed species be found dead or injured during this project. Notification

must include the date, time, and location of the carcass, and any other pertinent information. Dead animals may be marked in an appropriate manner, photographed, and left on-site. Injured animals should be transported to a qualified veterinarian. Should any treated animals survive, the Service should be contacted regarding the final disposition of the animals. The Service contact person is Jack M. Fancher and may be contacted at the letterhead address or at (619) 431-9440.

Conservation Recommendations

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. The term conservation recommendations has been defined as Service suggestions regarding discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information. The recommendations provided here relate only to the proposed action and do not necessarily represent complete fulfillment of the agency's 7(a)(1) responsibility for these species.

Further scientific investigation of the manner in which the brown pelican utilizes San Pedro Bay, and of least tern foraging behavior in the harbor area and Machado Lake would be desireable. Active eradication of predators of the least tern, specifically feral cats and dogs, and crows would contribute to the recovery of the species.

In order for the Service to be kept informed of actions that either minimize or avoid adverse effects or that benefit listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

Conclusion

This concludes formal consultation on the Los Angeles Harbor Feasibility Study. As required by 50 CFR 402.16, reinitiation of formal consultation is required if the action is significantly modified in a manner not discussed above, if new information becomes available on listed species or impacts to listed species, or if the incidental take limit is exceeded. We would appreciate notification of your final decision on this matter.

Sincerely,

Jeffrey D. Opdycke
Field Supervisor

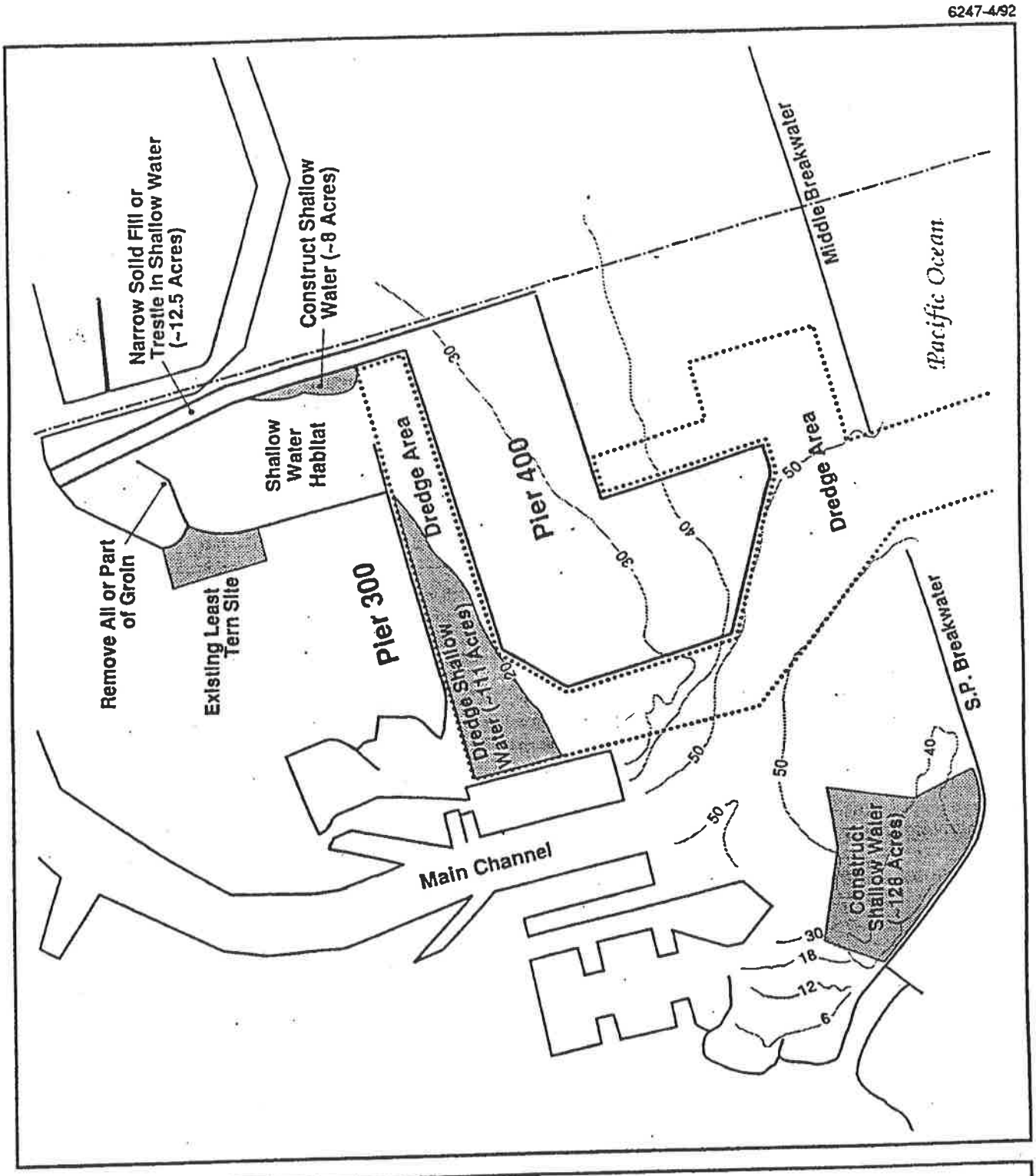
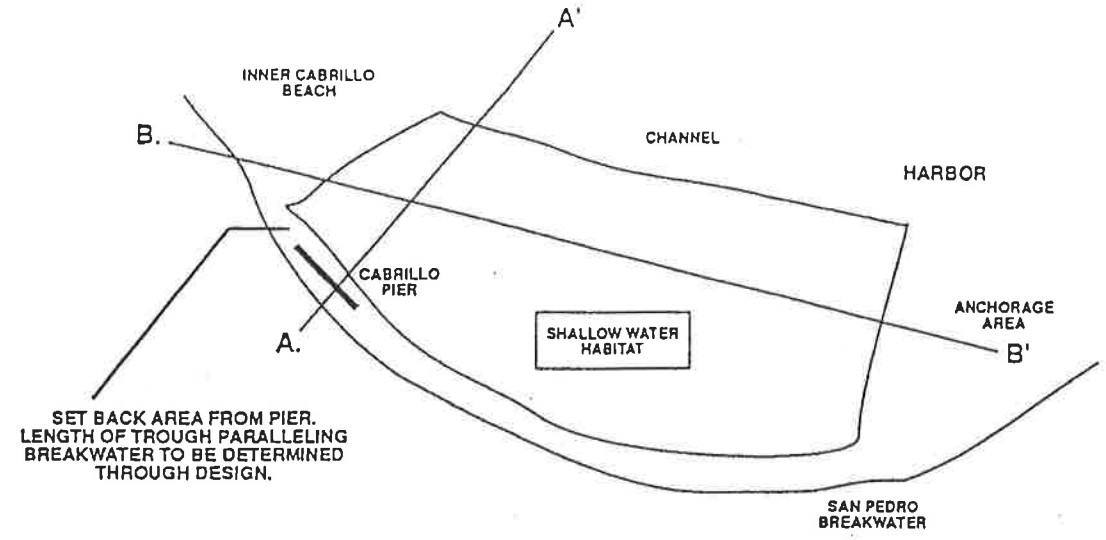
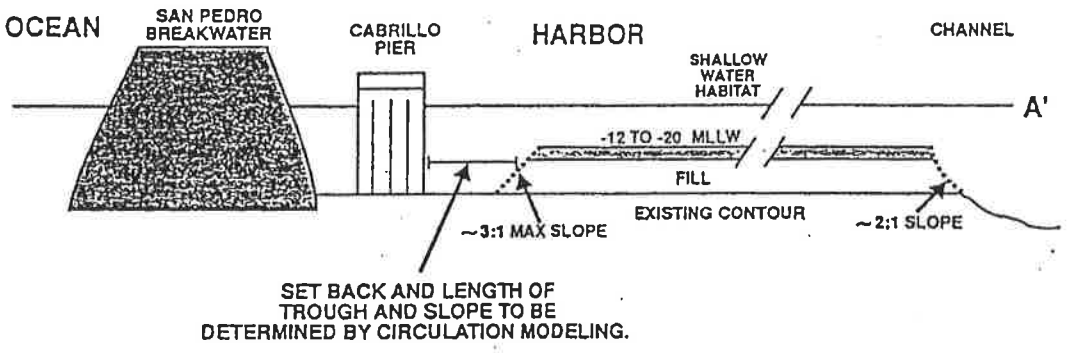


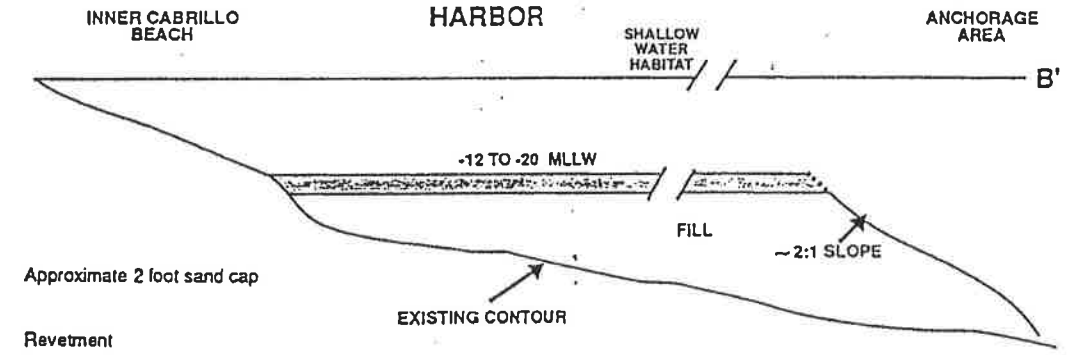
Figure 1.
Location of On-Site Measures for Least Tern and Marine Resources



A.



B.



Approximate 2 foot sand cap

Revetment

NOT TO SCALE

CROSS-SECTIONAL VIEW OF SHALLOW WATER HABITAT
Figure 2.

FIGURE 4a. Federal Schedule of Construction Activity to Avoid Impacts to Foraging of California Least Tern in Shallow Water During Nesting Season.

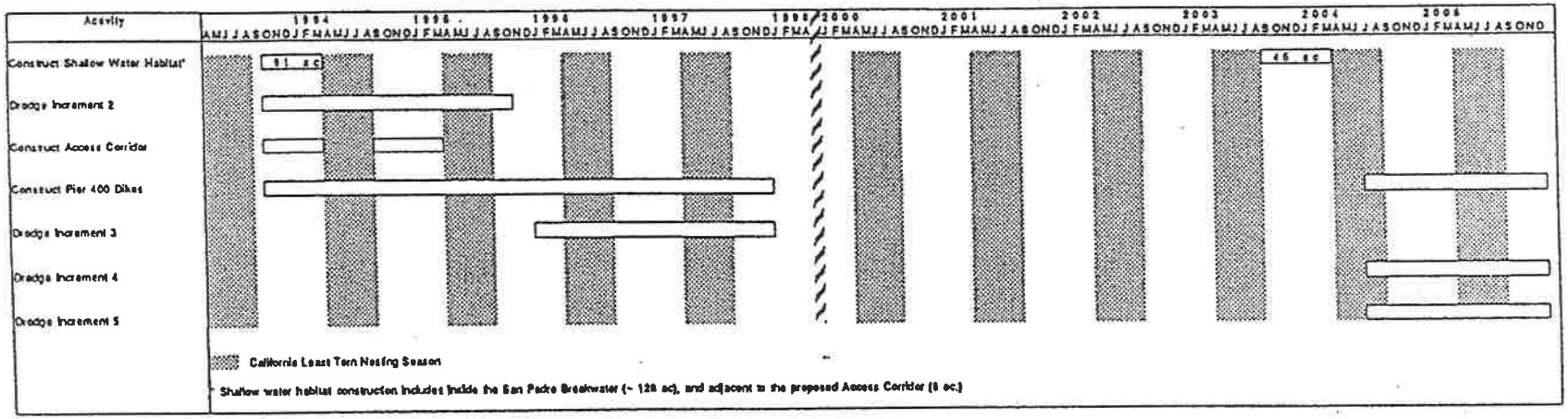


FIGURE 4b. Port Schedule of Construction Activity to Avoid Impacts to Foraging of California Least Tern in Shallow Water During Nesting Season.

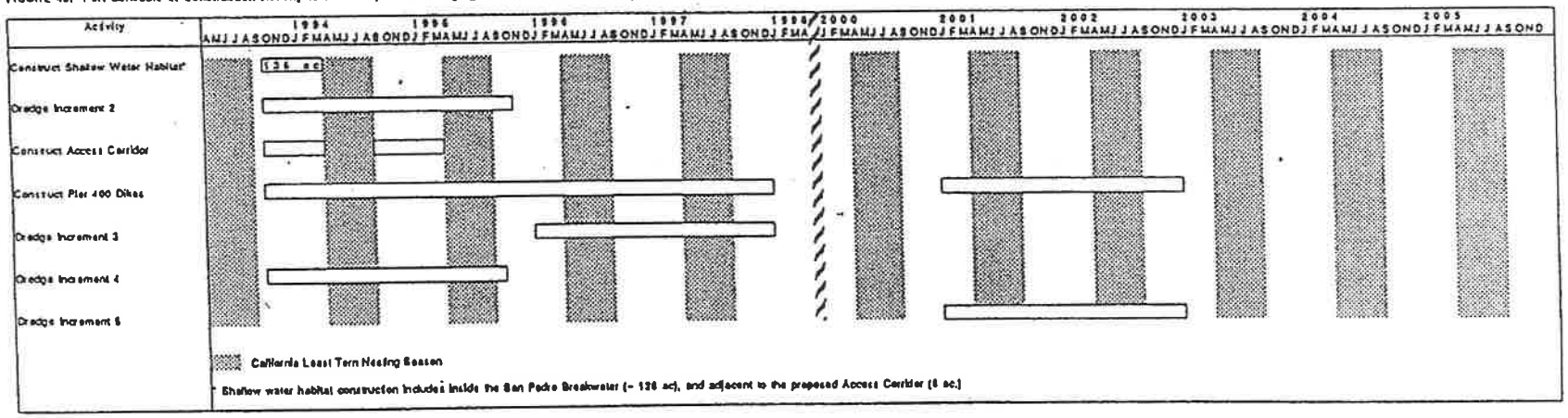
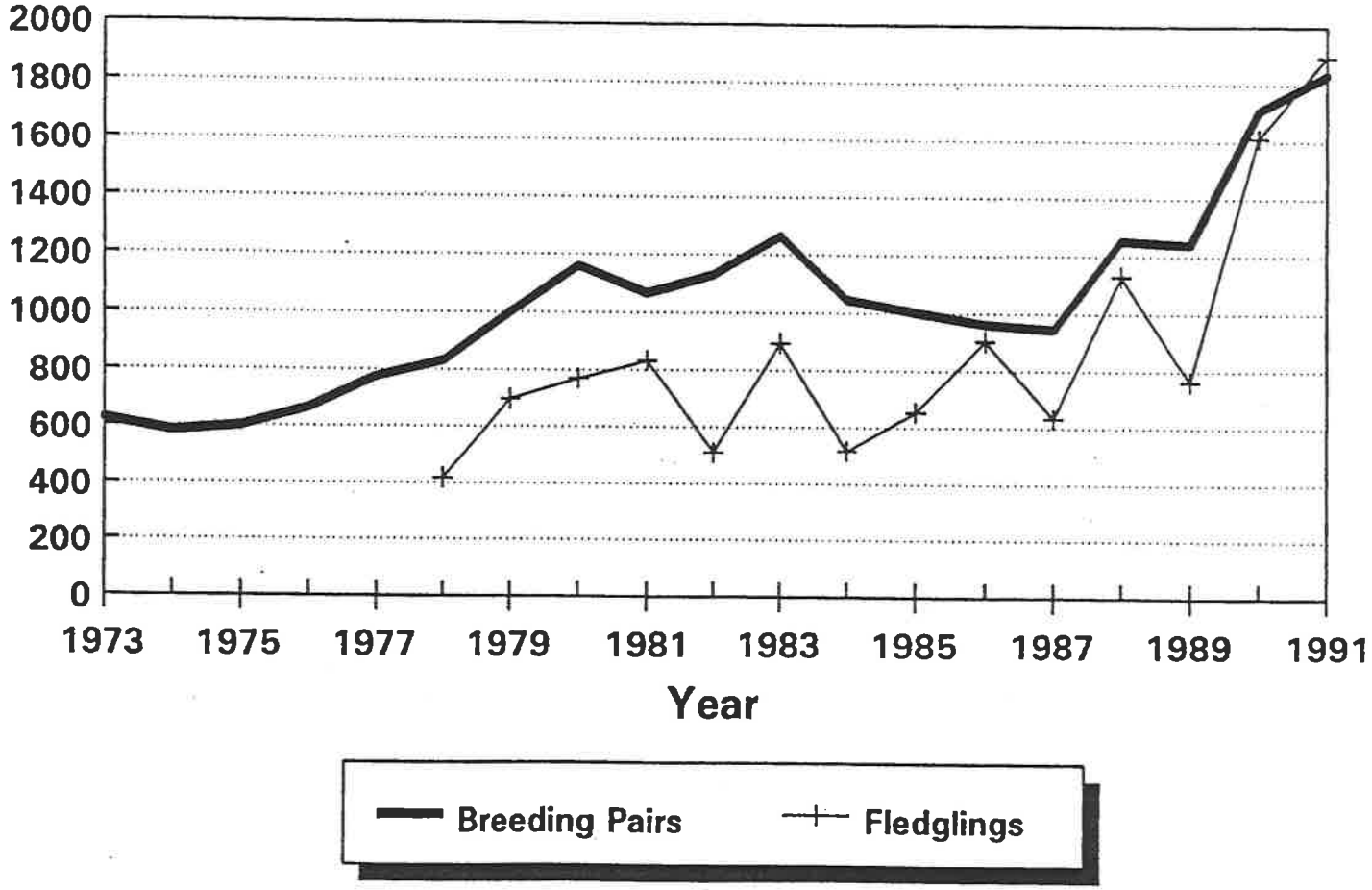


Figure 3.

CALIFORNIA LEAST TERN

Annual Statewide Population and Fledgling Production



from CDFG censuses

Figure 4.

California Least Tern
LA-OC Breeding Pairs

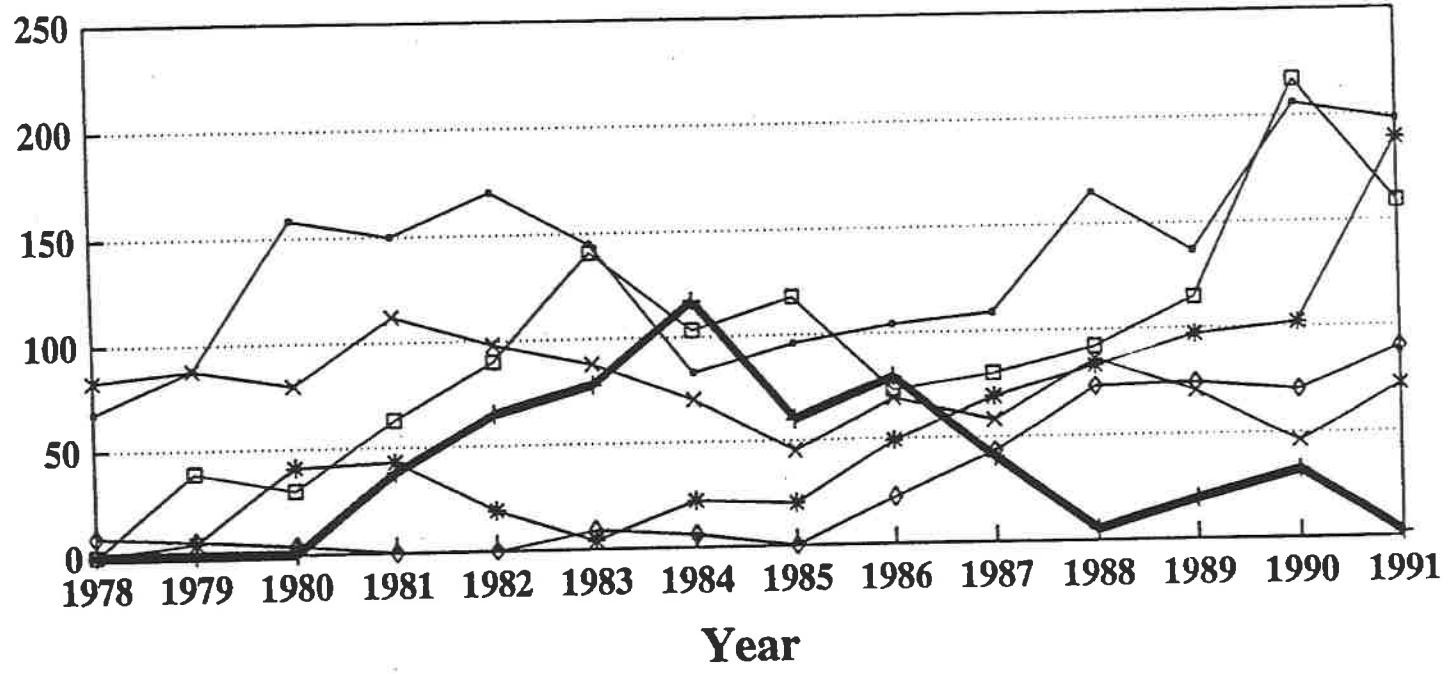


Figure 5.

RESOLUTION NO. 4354

WHEREAS, the 94th Congress of the United States, in its second session, passed the Water Resources Development and River Basin Monetary Act of 1976 (House Document 94-594), authorizing a dredging project for the deepening of inner channels and basins in the main and entrance channels of the Port of Los Angeles to forty-five (45) feet below mean lower low water, this Act being signed by the President on October 23, 1976; and

WHEREAS, the Board of Harbor Commissioners on January 3, 1979, by Resolution No. 4322 reaffirmed its intent to cooperate with the Corps of Engineers to carry out the proposed harbor deepening project; and

WHEREAS, the final joint environmental impact statement/environmental impact report pursuant to the National Environmental Policy Act and the California Environmental Quality Act is now being prepared for Board review prior to final approval of the deepening project; and

WHEREAS, in order to proceed with the timely planning and design of the project, it is necessary to assure concerned wildlife agencies that the project will adequately protect fish and wildlife, particularly the least tern in the Reeves Field area; and

WHEREAS, pursuant to wildlife consultations undertaken by the Harbor Department staff with the Corps and various wildlife agencies, the United States Fish and Wildlife Service and the California Department of Fish and Game are satisfied that the below described wildlife protection measures will adequately protect the least tern and that these agencies will not oppose the deepening project or any project on Reeves Field because of the nesting of least terns in or about Reeves Field;

NOW, THEREFORE, BE IT RESOLVED by the Board of Harbor Commissioners of the City of Los Angeles, that pursuant to consultations undertaken with the involved agencies including the Corps of Engineers, U. S. Fish and Wildlife Service, California Department of Fish and Game, Congressman Glenn Anderson's Office, and the Harbor Department, it is the intent of the Harbor Department to cooperate with the Corps and wildlife agencies in carrying out the below measures upon the express condition that these measures also are agreed to by the affected agencies and with the Board's understanding that the local offices of the Fish and Wildlife Service and the California Department of Fish and Game will not oppose future development on Reeves Field based on impacts on the least terms:

a. Protect the existing 15-acre Reeves Field site for at least the 1979 and 1980 nesting seasons (1 April through 31 August).

b. Prepare and protect a 15-acre Ferry Street site for the 1979 and 1980 nesting seasons, if desired.

c. After the 1980 nesting season, the Reeves Field site could be relocated to an adjacent overlapping area with at least a one-third or mutually agreed upon overlap of the prior year's nesting area for a minimum of two years.

d. A 15-acre alternate site will need to be provided from the 1980 nesting season for a minimum of four years or until the new landfill site has been utilized for nesting for at least two consecutive years.

e. Provide a 15-acre site on the landfill for four years commencing when it is mutually agreed upon between U. S. Fish and Wildlife, Harbor Department, and Corps that it is ready for nesting or until several pairs nest, whichever is sooner.

f. If no terns have nested at Reeves Field for four consecutive years the area may be relinquished assuming an alternate site is available for at least four additional years.

g. If least terns nest for two consecutive years on both Reeves Field and an alternate site, either may be relinquished and the other will be maintained for nesting.

h. The existing Reeves Field site must be maintained for a minimum of two years.

i. Any site could be relinquished after four consecutive years of nonnesting or when another alternate site has had at least two consecutive years of successful nesting.

j. Protected sites suitable for nesting need only be provided during the nesting season (1 April through 31 August).

k. A solely utilized 15-acre nesting site must be maintained as long as it remains solely utilized.

l. The size of the landfill shall be 190 acres.

m. Provide shallow water habitat within the area bounded on the west by the landfill, on the north by the seaplane anchorage breakwater, on the east by a line west of the port boundary, and on the south by a projected line from the south side of the landfill to the port boundary.

n. Provide funds to the Fish and Wildlife Service for studies of the Terminal Island colony to determine the effectiveness of the proposals. (The wildlife agencies have not yet been able to provide the Corps with an estimate of funds needed. Preliminary discussions between the Corps and the agencies indicate a budget of approximately $3,000.00

per year for five to seven years. The Harbor Department's contribution to the fund if any is still being discussed with the Corps.)

I HEREBY CERTIFY that the foregoing Resolution was adopted by the Board of Harbor Commissioners of the City of Los Angeles at its meeting held

MAR 28 1979

TSUYOKO OTA
Secretary

APPROVED AS TO FORM

March 22, 1979

BURT PINES, City Attorney

By
RAYMOND P. BENDER, Deputy

RPB:mj
3/22/ 79

LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS

JUL 31 1994

DEPARTMENT OF THE ARMY PERMIT

Permittee:

Los Angeles Harbor Department
ATTN: Vernon E. Hall
P.O. Box 151
San Pedro, CA 90733-0151

Permit Number: 88-011-CC

Issuing Office:

Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To 1) Dredge 30 million cubic yards of material to deepen navigation channels. 2) Place 38,000 linear feet of rock dike to construct 225 acres of new land including an access/transportation corridor. 3) Construct shallow water habitat. 4) At Pier 300, dredge 115,000 cubic yards of material to increase the depth to -45 feet mean lower low water (MLLW), replace original stone and armor, and construct wharves with steel or concrete piles. 5) Modify existing outfall structure and later construct new outfall structure. Project components are shown on the attached Public Notice drawings.

Project Location: In the Port of Los Angeles, at San Pedro, California.

EXHIBIT C

Permit Conditions

General Conditions:

1. The time limit for completing the authorized activity under this permit ends on December 30, 1999. However, we expect your project will require more than the five (5) years allotted in the permit. Please submit your request for a time extension to this office for consideration at least one month before the above date is reached. The decision to issue an extension will be based primarily on the issues delimited under Further Information Items four (4) and five (5) below.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

Special Conditions: See attached sheets.

Further Information: Contact Cheryl Conel 213/894-0348 or 213/894-5606

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not

limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Vernon E. Hall — June 29, 1994.

(PERMITTEE) (DATE)

VERNON E. HALL
CHIEF, HARBOR ENGINEER

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

R. L. Van Antwerp — 1 July 94

R. L. Van Antwerp
Colonel, Corps of Engineers
District Engineer

Date

When the structures or work authorized by this permit, 88-011-CC, are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ _____

(TRANSFEREE) (DATE)

SPECIAL CONDITIONS
PERMIT NUMBER 88-011-CC

1. The 1.4 acre Pier 300 landfill shown in Figures VII and X of the Public Notice is NOT authorized under this permit. Upon resolution of the Coastal Zone consistency issue with the California Coastal Commission, the applicant will provide the Corps of Engineers Regulatory Branch (Corps) with appropriate documentation reflecting such resolution. Following receipt of the appropriate documentation, the Corps will issue a permit modification authorizing the 1.4 acre Pier 300 landfill.

2. The Port of Los Angeles shall provide compensation for loss of general marine resources as a result of landfill construction by implementing a coastal wetland restoration project at Batiquitos Lagoon per the requirements of the Batiquitos Memorandum of Agreement (MOA) with the resource agencies, the City of Carlsbad and State Lands Commission (LAHD et al, 1987). The Batiquitos Lagoon Project shall be initiated in advance or concurrent with the proposed dredge and landfill project in the Port of Los Angeles.

3. a. The Port of Los Angeles shall construct the proposed Pier 400 transportation/access corridor along or as close as possible to the existing Navy Mole consistent with Navy requirements (see attached Figure IA as an example) to minimize loss of marine habitat in the Seaplane Lagoon and the existing shallow water habitat east of Pier 300. The area of water contained at the far northern end of the corridor (approximately 7.3 acres*) shall be filled and that area shall be compensated at a ratio of 2:1 by creating replacement shallow water habitat within the Los Angeles Harbor.

b. The access/transportation corridor shall minimize the footprint of the fill and avoid or minimize adverse impacts to fish and wildlife habitat, water circulation patterns and water quality.

c. One or more breaches shall be incorporated into the final Pier 400 access/transportation corridor design to minimize any potential fish, wildlife, water circulation patterns, and water quality impacts.

d. Approval of the final alignment, size, and breach design for the Pier 400 access/transportation corridor shall be the responsibility of the Corps following full coordination with the resource agencies (EPA, CDFG, USFWS, and NMFS). (See Condition 6 regarding agency concurrence with final design.) The Corps of Engineers and the Port of Los Angeles, in consultation with these resource agencies, shall provide water quality information to assist in the final design

determination. Construction of this feature shall not begin until Corps approval of the final design has been granted.

* All acreages cited here will be subject to minor adjustment during the final design in coordination with the appropriate agencies.

4. Prior to spanning the breach(s) in the access/transportation corridor, the Port will obtain a Section 9 permit from the Coast Guard for the corridor. In addition, the Port will coordinate with the USCG on vessel traffic, structure marking, and navigational concerns prior to implementing any portion of the permitted project.

5. The sediments along the face of Pier 300 with elevated levels of chemical constituents (delimited in the attached EPA letter) shall be removed and placed in the lowest portion of the proposed permanent shallow water habitat near the San Pedro Breakwater. These sediments shall be isolated by covering with other dredge materials and finally capped with a two foot layer of sand achieving a final elevation of the replacement shallow water habitat at or less than -20 feet mean lower low water$_{(b)}$ thus creating a Contained Aquatic Disposal (CAD) site. Detailed capping, construction and monitoring plans for the CAD shall be developed prior to construction. The period of exposure of the sediments containing elevated levels of chemical constituents shall be minimized. The plans shall include a written discussion concerning minimization of exposure of the elevated level sediments. Approval of the final CAD plans shall be the responsibility of the Corps following full coordination with the resource agencies (EPA, CDFG, USFWS, and NMFS). Construction of this feature shall not begin until Corps approval of the final design has been granted. (See Condition 6 (below) regarding agency concurrence with final design.)

6. The Port and Corps Regulatory will coordinate with EPA, USFWS, NMFS, CDFG, Corps Engineering Division, Corps Waterways Experiment Station (WES) (Vicksburg, Ms.) and Corps Operation Branch in the development of the final designs for:

    1. the access/transportation corridor described in Condition 3 above and

    2. the CAD/shallow water habitat described in Condition 5 above.

Prior to Corps Regulatory approval of the final access/transportation corridor and CAD/shallow water habitat designs, Corps Regulatory will submit the draft final designs to the Corps District (noted above) and WES for review. (Corps Regulatory approval of final designs must

occur prior to construction.) The Corps will then submit the draft final designs to EPA, USFWS and EPA and request a letter of concurrence on the draft final designs from the agencies. The agencies will be given five working days to review the documents. If EPA, USFWS, or NMFS, do not concur with the proposed final design, the Corps will issue a Public Notice for the access/transportation corridor and/or shallow water habitat as required for a major modification to a permit action. The federal agencies, at that time, can designate the appropriate area as an Aquatic Resource of National Interest (ARNI) and elevate the permit modification decision pursuant to the 404 (q) MOA.

7. The Port of Los Angeles shall create a temporary shallow water (<-20 ft. $MLLW_{(b)}$) habitat area of approximately 77 acres at the southern most end of the proposed Stage I access/transportation corridor and approximately 33 acres adjacent to the existing shallow water habitat area for a total of approximately 110 acres. This temporary shallow water habitat is intended to provide replacement of California least tern foraging area prior to completion of the permanent shallow water habitat to be constructed near the San Pedro Breakwater and to allow for advance dredging at the face of Pier 300 for construction of wharfs. The temporary shallow water habitat shall be constructed prior to the nesting season, April - September.

8. The Port of Los Angeles (in conjunction with Corps Los Angeles District (Corps District) under the Federal $Plan_{(c)}$) shall construct and maintain at least 144 acres of permanent shallow water habitat (<-20 ft. MLLW) adjacent to the San Pedro Breakwater. Construction of the access/transportation corridor will result in the loss of approximately 30 acres of interim shallow water habitat from Areas C and E (see attached Figure II). Approximately 20 acres of shallow water habitat at area C will also be permanent shallow water habitat and approximately 60 acres of area E will remain until Stage 2 of the Pier 400 landfill is constructed. The 60 acres of area E to be filled during Stage 2 will not be subject to additional mitigation for shallow water marine resources. Stage 2 of the Pier 400 landfill (currently scheduled for 1996) will be subject to a separate NEA document and permit application if built by POLA rather than the POLA/Corps.

9. If permitted, (See Condition 1) the area (approximately 1.4 acres) in the existing shallow water habitat to be filled for construction of the fourth Pier 300 berth shall be compensated at a ratio of 2:1 by creating replacement shallow water habitat either adjacent to the proposed access corridor or at the San Pedro breakwater.

10. Unless specifically allowed by CDFG and USFWS, the Port of Los Angeles/Corps District shall not allow visual surface

turbidity from dredge and fill activities to extend into any shallow water habitat during the April-to September breeding season of the California least tern. (If turbidity is observed near SWH during the least tern breeding season, a silt curtain or other technology will be required to minimize the impacts.) This requirement will be monitored as provided in Condition 12 below and will include the area east of Pier 300, interim shallow water habitat prior to completion of the permanent shallow water habitat adjacent to the San Pedro breakwater, the San Pedro breakwater shallow water habitat upon completion, and the shallow water habitat in the Cabrillo recreation area.

11. Unless approved otherwise by CDFG and USFWS, the Port of Los Angeles/Corps District shall ensure that no pile driving shall be allowed along the access corridor occurring in shallow water (< -20 ft. MLLW) during the April-to September breeding season of the California least tern.

12. The Port of Los Angeles/Corps District shall provide a qualified least tern biologist, acceptable to USFWS and CDFG and approved by the Corps Regulatory to monitor and manage the least tern colony during the nesting season. This program shall be carried out for up to one year following construction of the new shallow water habitat, access corridor, Pier 400, and any future alternative least tern nest site. The biologist shall coordinate with the appropriate parties pursuant to the existing least tern MOA and shall:

    a. Monitor nesting and fledgling success of the least tern colony and provide an annual report in the format provided in previous years.

    b. Provide an education program for construction crews as to the identity of the least tern and their nests, restricted areas and activities, actions to be taken if least terns are found outside the designated least tern nesting sites, and any other pertinent requirements.

    c. Assist the USFWS and CDFG in predator control, as required, prior to and during the least tern nesting season during the construction period.

    d. Visually monitor and report to the Port/Corps contract manager and to CDFG/USFWS an turbidity from project dredging which is near any shallow water habitat area during the California least tern nesting season, April - September.

13. If California least tern nests are found outside the designated nesting sites, all work in the immediate area shall be halted, and the least tern biologist shall be notified immediately. An appropriate buffer zone and

protection shall be specified by the biologist in coordination with CDFG, USFWS, the Port and the Corps Regulatory.

14. The Port of Los Angeles shall investigate the removal of portion(s) of the existing rocky-dike groin in the Seaplane Lagoon. The value of this shall be documented in water quality modeling studies and submitted to the concerned resource agencies.

15. No construction staging area shall be located within 200 feet of the identified least tern site during the April-to-September least tern nesting season.

16. The Port of Los Angeles shall only undertake modification/relocation of the least tern nesting site on Pier 300 pursuant to the requirements of the existing least tern nesting site MOA (LAHD et al. 1991).

17. The Port of Los Angeles or their contractors shall report any incidental take to the Corps of Engineers. The Corps of Engineers shall then reinitiate consultation with USFWS immediately in the event of incidental take in the form of direct mortality through accidental death of more than one California least tern or more than on California brown pelican to avoid violation of Section 9 of the Endangered Species Act. Operations shall be stopped during the period between initiation and completion of the new consultation if it is determined that the impact of the additional taking will cause an irreversible and adverse impact on the species, as required by 50 CAR 402.14(i).

18. The USFWS is to be notified by the Port/Corps within three working days should any listed species be found dead or injured during this project. Notification shall include the date, time, and location of carcass, and any other pertinent information. Injured animals shall be transported to a qualified veterinarian. Should any treated animals survive, USFWS shall be contacted regarding the final disposition of the animal.

19. Construction related impacts on air quality shall be minimized using the technology and equipment, such as electric dredges, discussed in the Feasibility Study and the EIS/EIR.

20. Blasting is not authorized under this permit.

21. EIS/EIR Mitigation Commitments (Section S.4) for Navigation Improvements including least tern protective measures are incorporated by reference.

Footnotes:

a. Unless otherwise specified, the term "Corps" or "Corps Regulatory" refers to U. S. Army Corps of Engineers, Los Angeles District, Regulatory Branch.

b. In all instances above, the term shallow water (< -20 ft. MLLW) means the final elevation after settling and other modifying effects. The final elevation shall be determined during monitoring. Additional fill to maintain the elevation may be required.

c. Once the Federal Project is initiated, approval of the majority of the operating procedures will be transferred from Corps Regulatory to the District.

PORT OF LOS ANGELES
PIER 400

PIER 400 DESIGN CONSULTANTS

TRANSPORTATION CORRIDOR CONFIGURATIONS (215 FT. WIDTH)

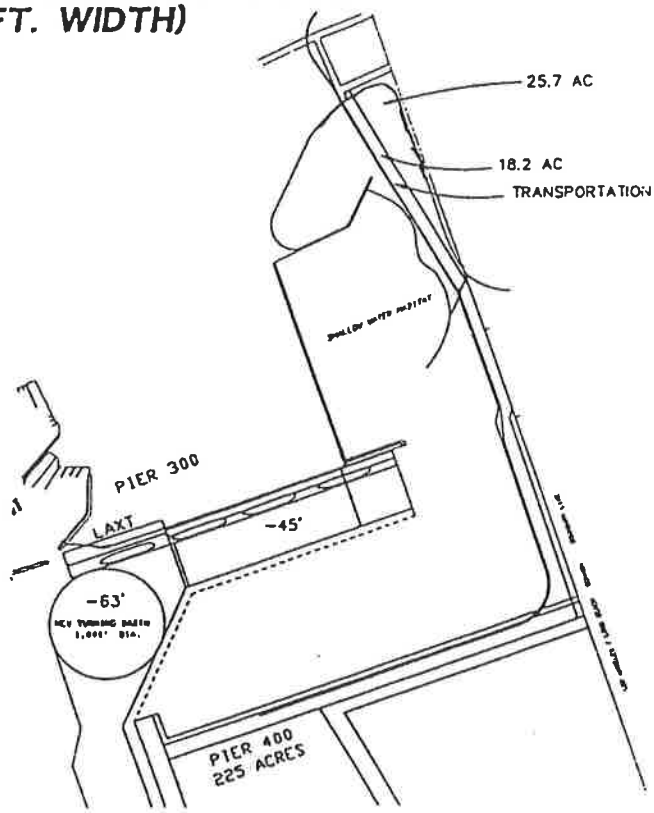
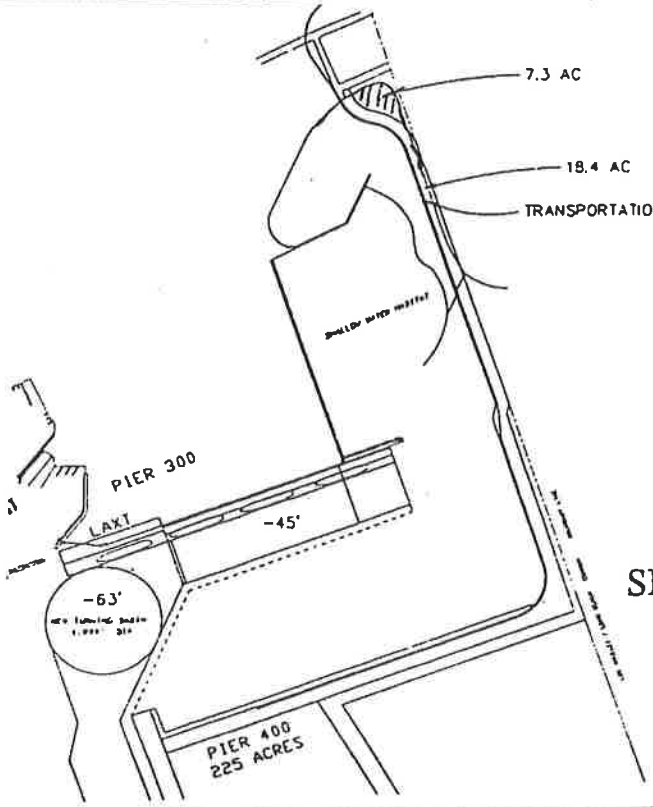


FIGURE 1
B

GRAPHIC SCALE



SPECIAL CONDITIONS
FIGURE 1
A

GRAPHIC SCALE

PORT OF LOS ANGELES
PIER 400

PIER 400 DESIGN CONSULTANTS

TRANSPORTATION CORRIDOR CONFIGURATIONS (215 FT. WIDTH)

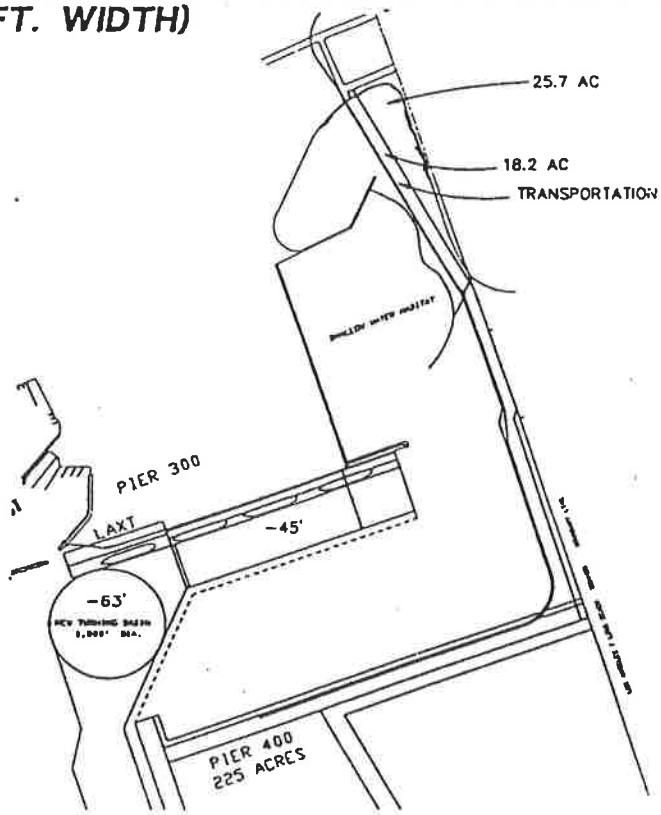
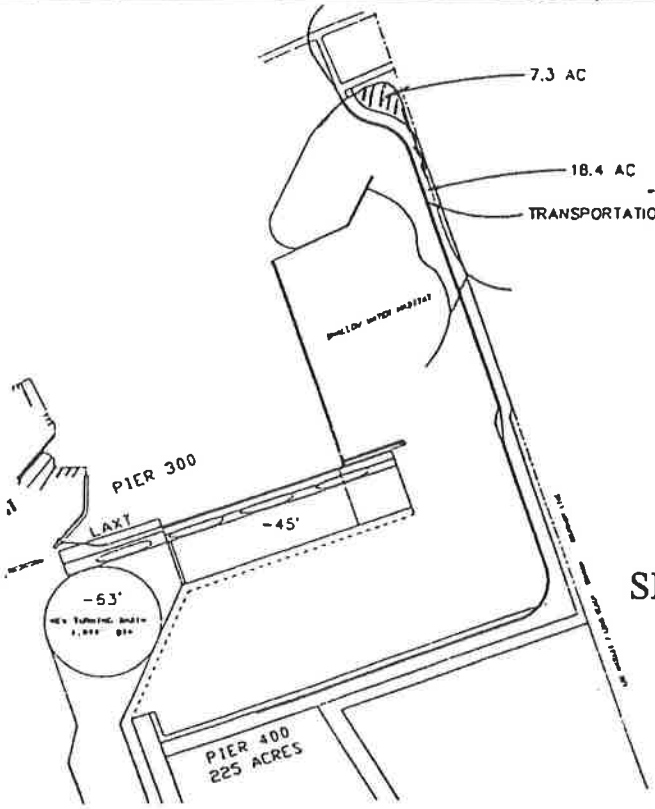


FIGURE 1
B

GRAPHIC SCALE



SPECIAL CONDITIONS
FIGURE 1
A

GRAPHIC SCALE

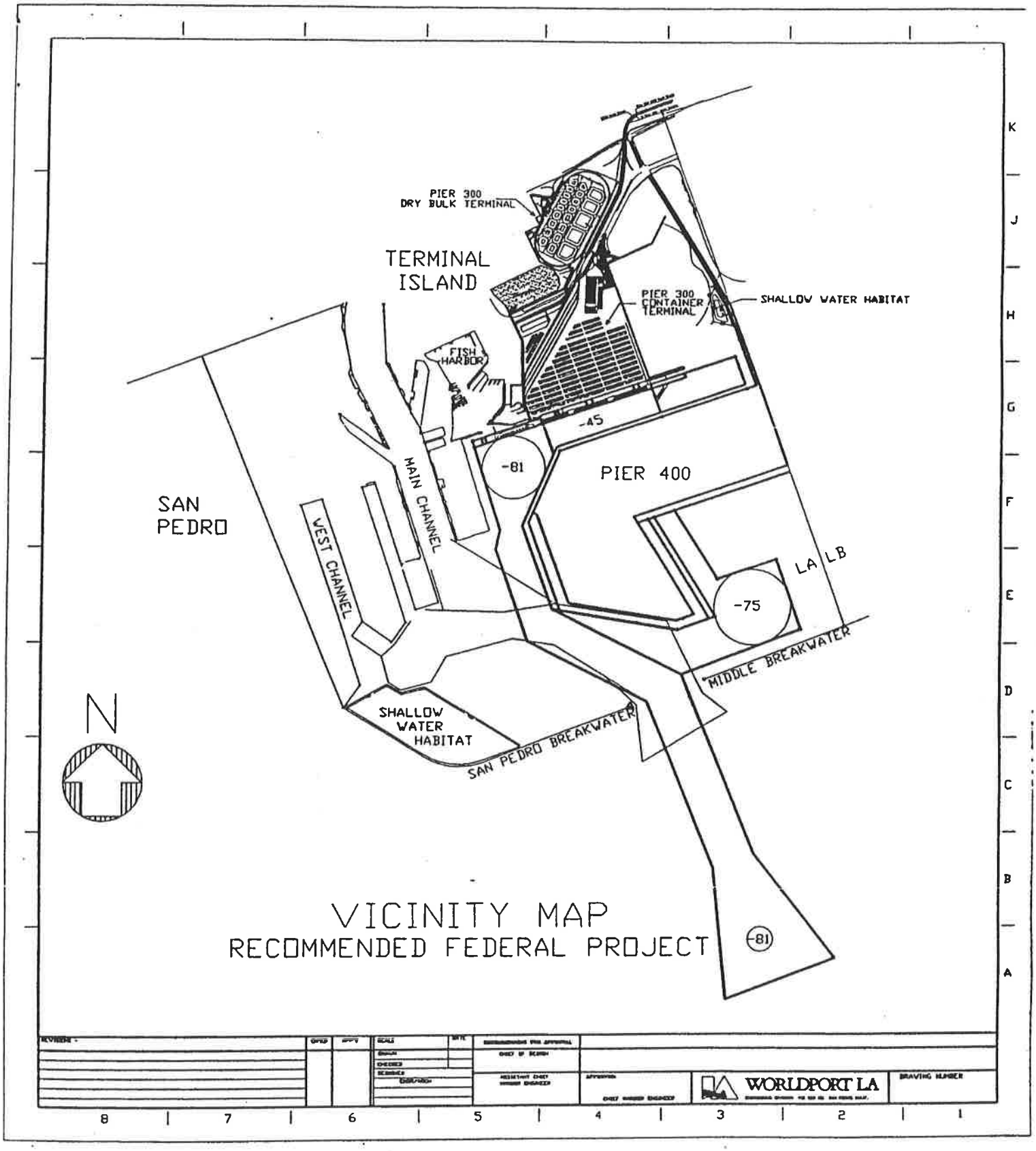
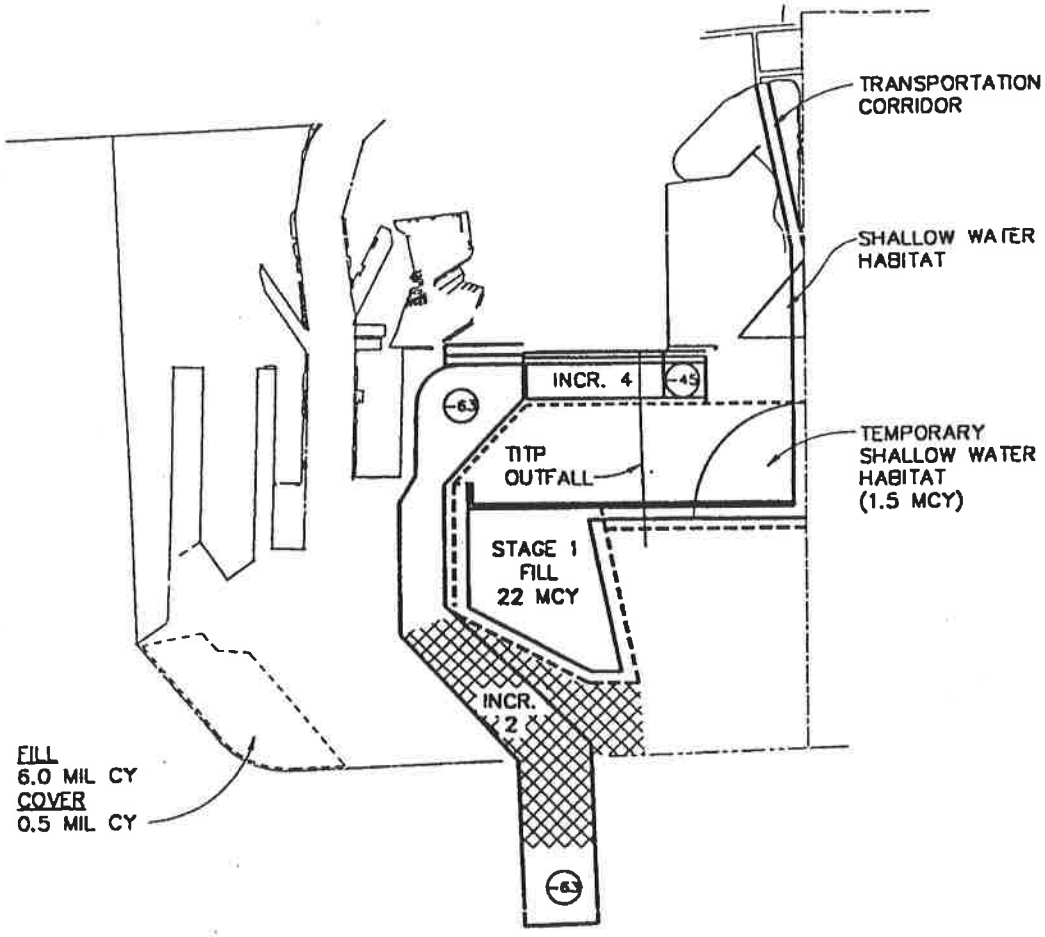

PIER 300
DRY BULK TERMINAL
TERMINAL
ISLAND
PIER 300
CONTAINER
TERMINAL
SHALLOW WATER HABITAT
FISH
HARBOR
-45
-81
PIER 400
SAN
PEDRO
MAIN CHANNEL
VEST CHANNEL
LA LB
-75
MIDDLE BREAKWATER
SHALLOW
WATER
HABITAT
SAN PEDRO BREAKWATER
N
-81
VICINITY MAP
RECOMMENDED FEDERAL PROJECT
WORLDPORT LA
DRAWING NUMBER
K
J
H
G
F
E
D
C
B
A
8
7
6
5
4
3
2
1

FIGURE I

STAGE 1 PROJECT SUMMARY



STAGE 1 DREDGE QUANTITIES

INCREMENT 4	3,750,000 CY
INCREMENT 2	16,250,000 CY
TITP OUTFALL TRENCH	500,000 CY
2' OVERDEPTH	2,000,000 CY
OVERDREDGE	7,500,000 CY
	30,000,000 CY

ROCK DIKES TOTAL: 7 MILLION TONS

STAGE 1 FILL REQUIREMENTS

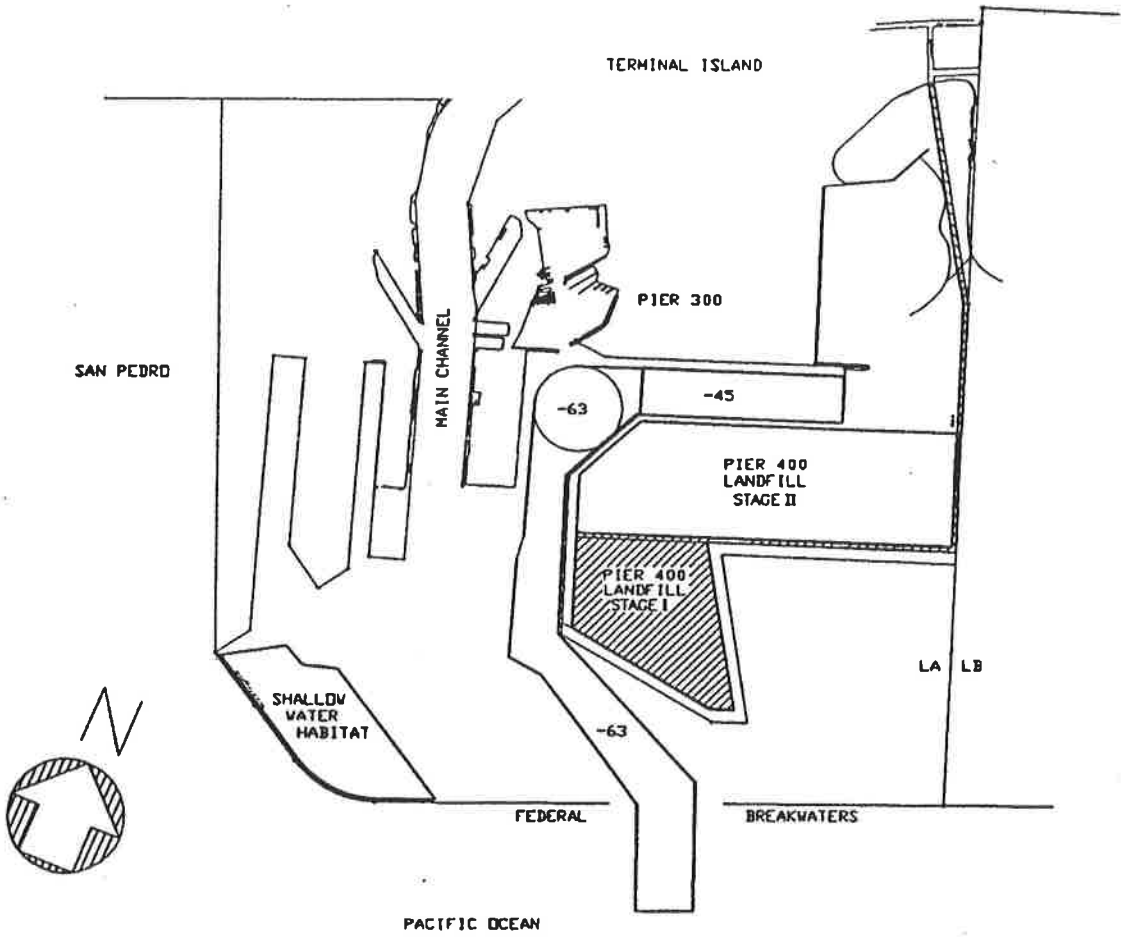
HABITAT FILL	6,000,000 CY
HABITAT COVER	500,000 CY
TEMP. HABITAT	1,500,000 CY
STAGE 1 FILL	22,000,000 CY
	30,000,000 CY

POTENTIAL OVERDREDGE AREA

WORLDPORT LA

DRAWING NUMBER

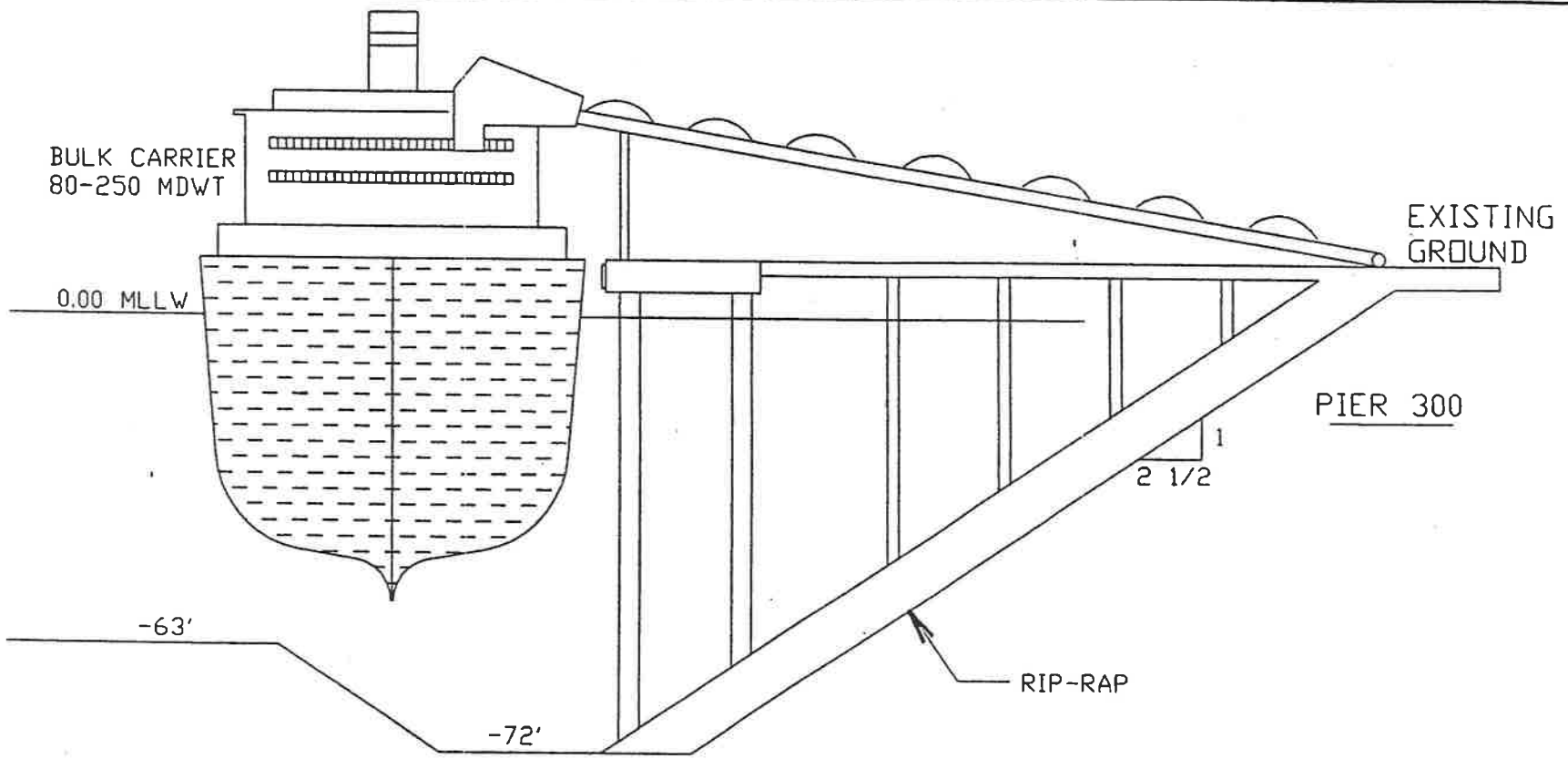
FIGURE II



PIER 400 - STAGE 1
225 ACRES LANDFILL
30 MILLION CUBIC YARDS

WORLDPORT LA

FIGURE III



CONCEPTUAL WHARF DESIGN
DRY BULK WHARF, PIER 300

WORLDPORT LA

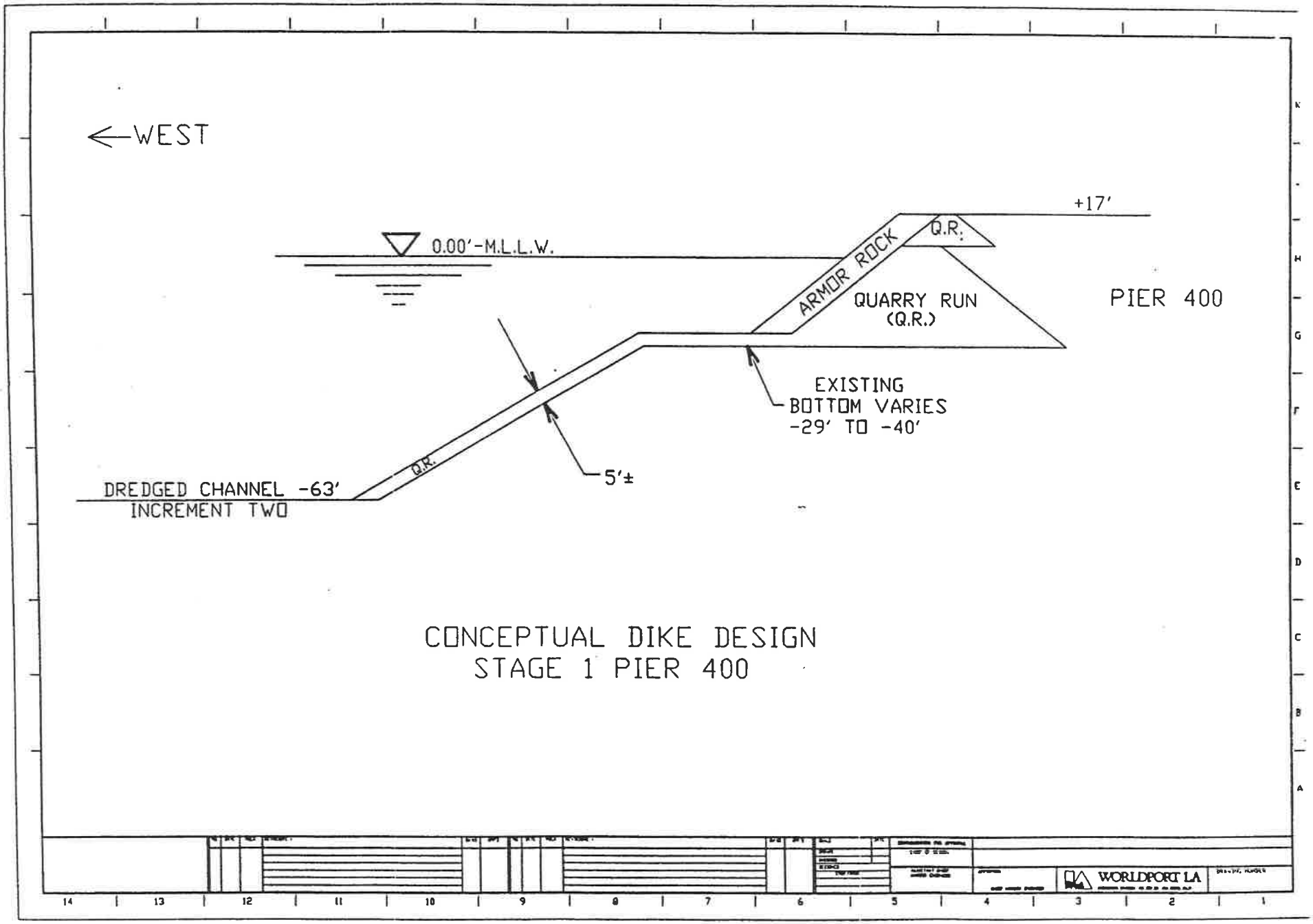
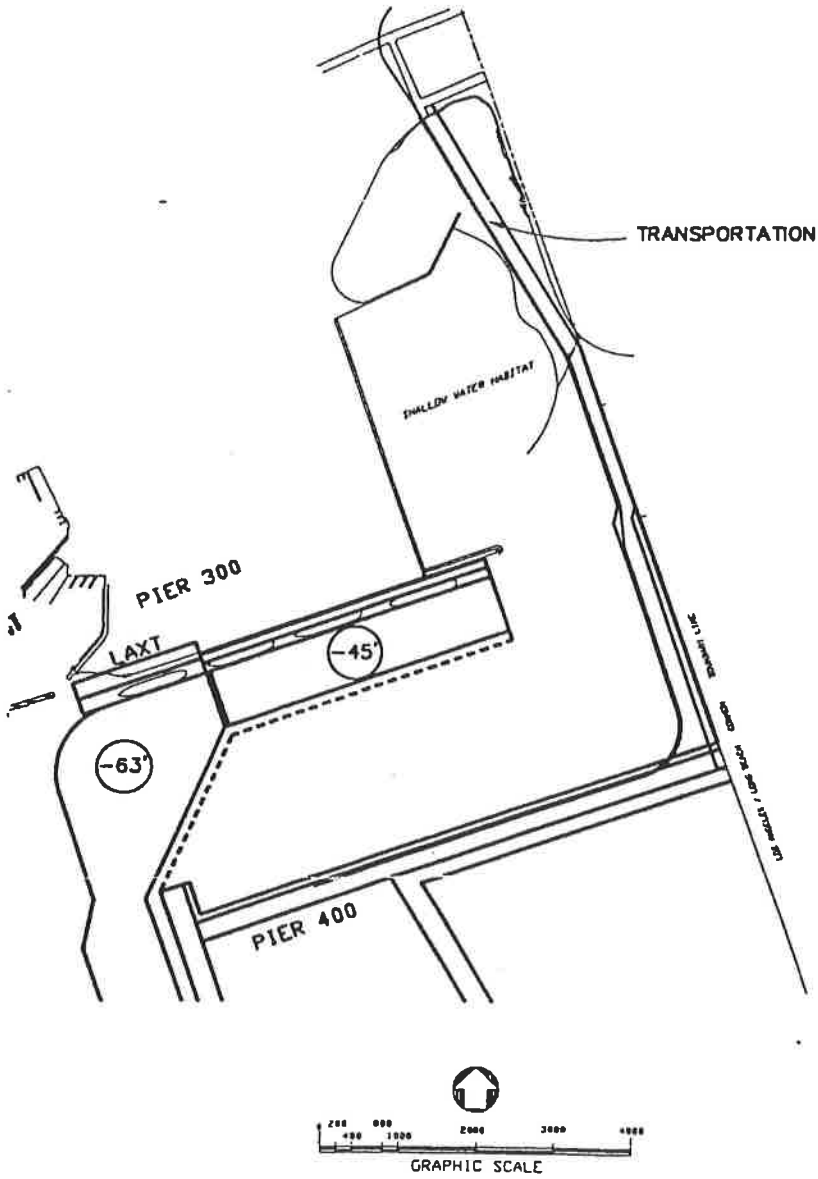

←WEST
+17'
0.00'-M.L.L.W.
ARMOR ROCK
Q.R.
QUARRY RUN
(Q.R.)
PIER 400
EXISTING
BOTTOM VARIES
-29' TO -40'
Q.R.
5'±
DREDGED CHANNEL -63'
INCREMENT TWO
CONCEPTUAL DIKE DESIGN
STAGE 1 PIER 400
WORLDPORT LA

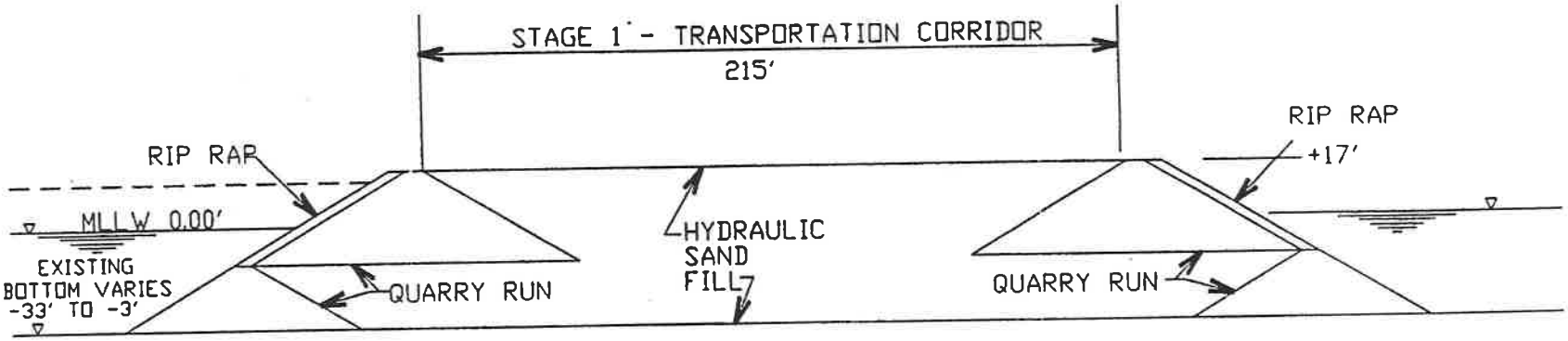
FIGURE V

TRANSPORTATION CORRIDOR CONFIGURATION (215 FT. WIDTH)



WORLDPORT LA

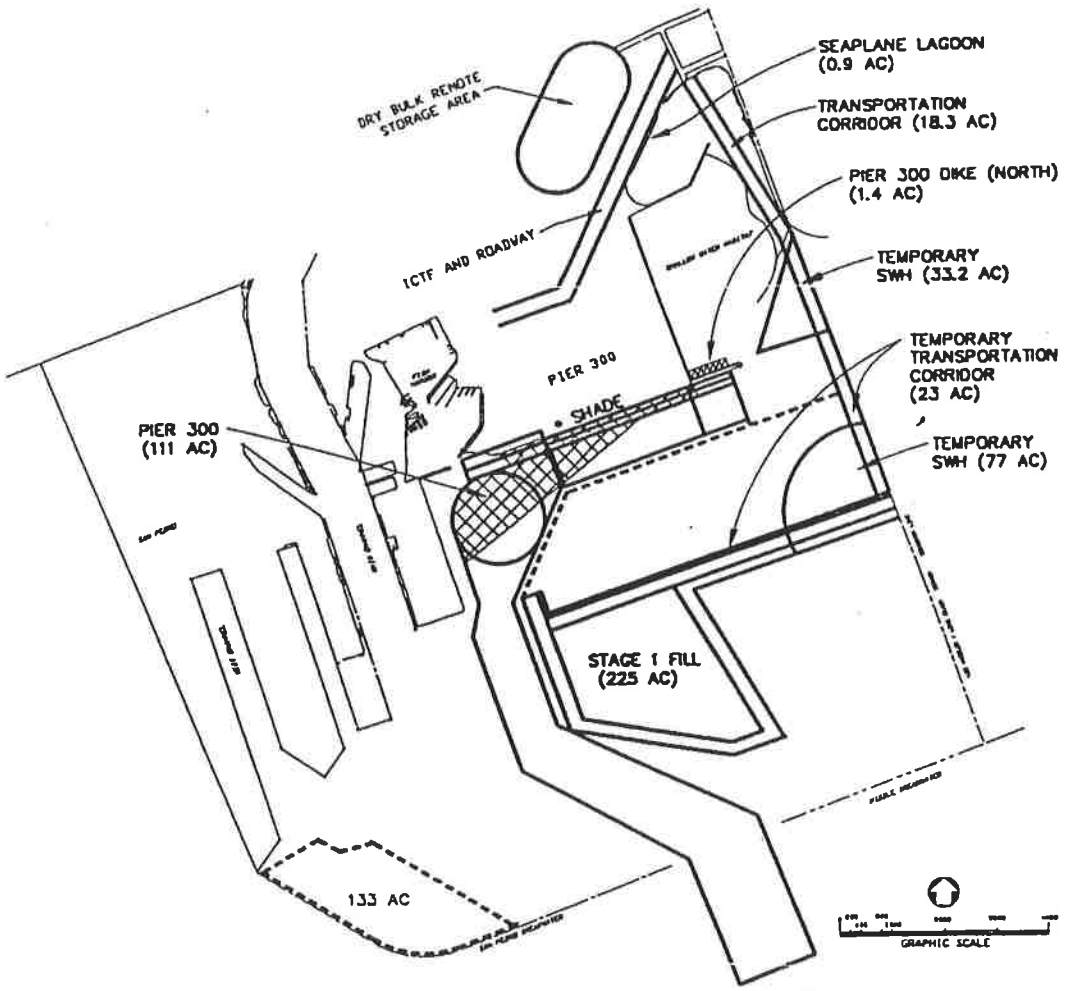
FIGURE VI



CONCEPTUAL DIKE DESIGN
TRANSPORTATION CORRIDOR, STAGE 1 PIER 400

WORLDPORT LA

BIOLOGICAL IMPACTS AND COMPENSATION*



	SHALLOW WATER (< -20 MLLW) ACRE	DEEP WATER (> -20 MLLW) ACRE
DREDGE IMPACTS	111.0	
LANDFILL IMPACTS		
ACCESS CORRIDOR	18.3 (X2)	23.3
PIER 400		225
SEAPLANE LAGOON	0.9 (X2)	
SHORELINE IMPR. *PIER 300 WHARF (SHADE)		10.5
PIER 300 DIKE (NORTH)	1.4 (X2)	
	152.2	258.8
COMPENSATION		
SHALLOW WATER HABITAT	19.6	
SAN PEDRO BREAKWATER	133.0	
BATIQUITOS LAGOON		383* (EXCESS BANKED)
	152.6	

*ACREAGES INDICATED ARE COMPUTED AT MEAN HIGH WATER

#23 18/41

WORLDPORT LA

FIGURE VIII

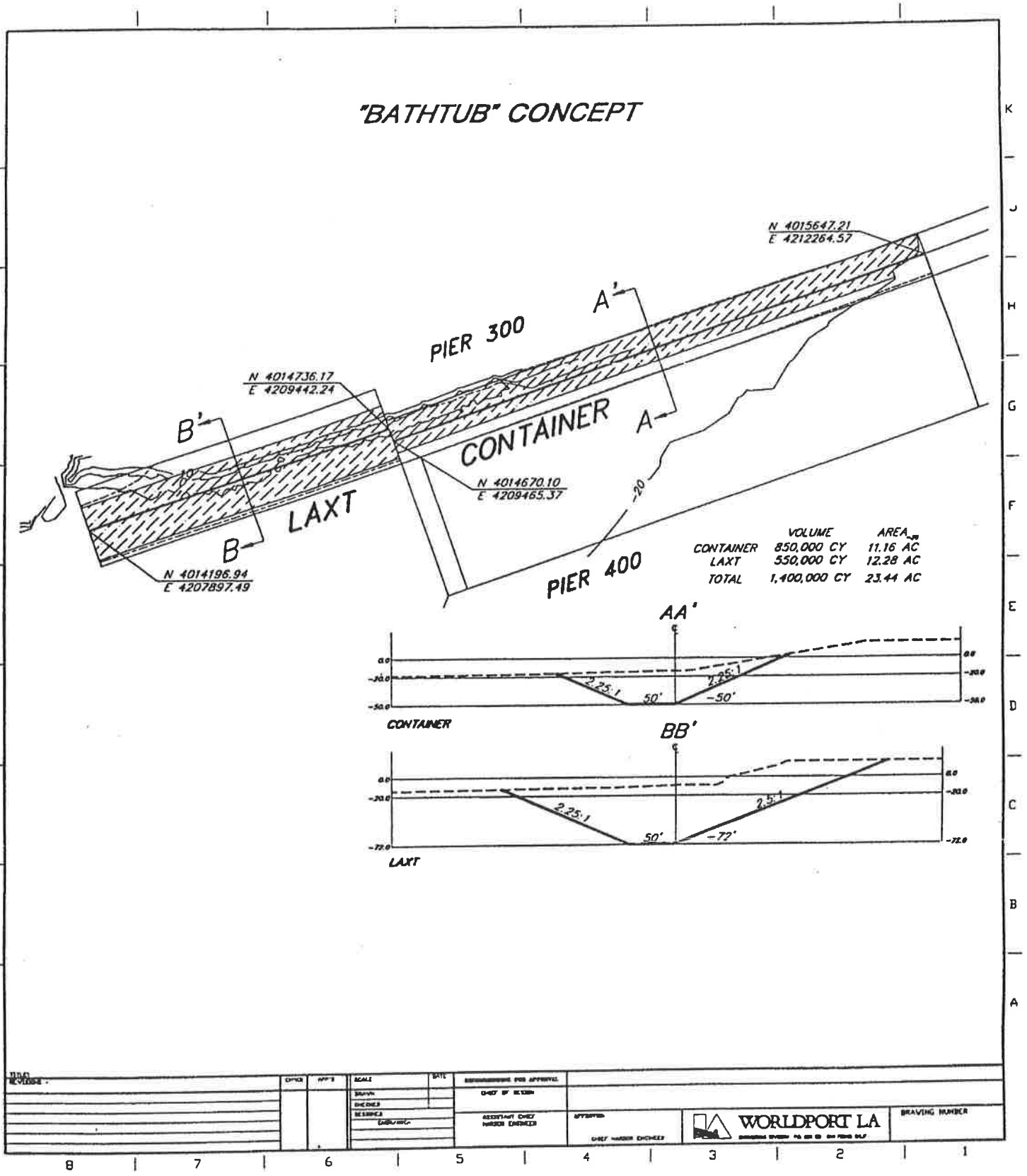
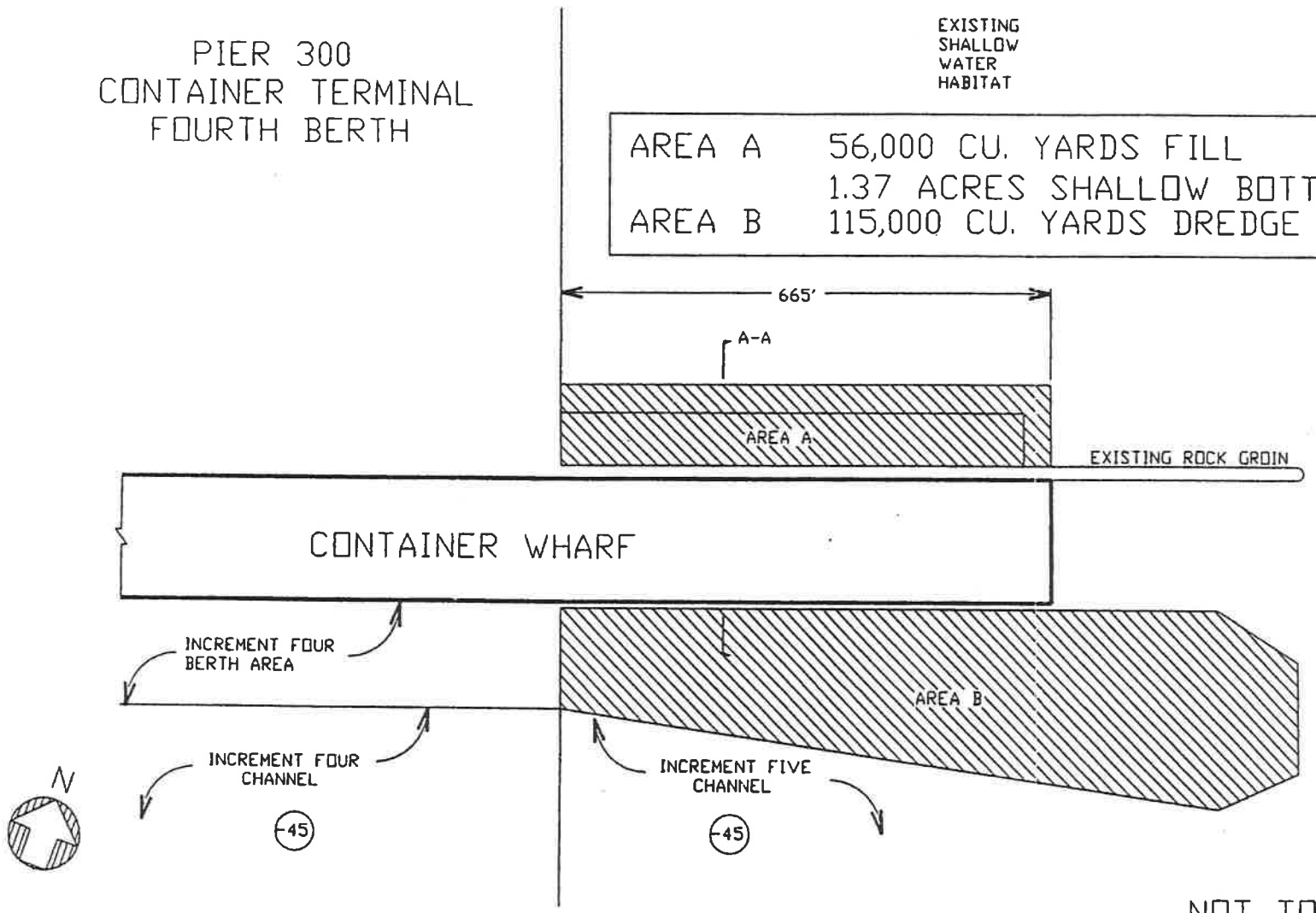

"BATHTUB" CONCEPT
N 4015647.21
E 4212264.57
A'
PIER 300
N 4014736.17
E 4209442.24
B'
CONTAINER
A
N 4014670.10
E 4209465.37
-20
LAXT
B
N 4014196.94
E 4207897.49
PIER 400
VOLUME
AREA
CONTAINER 850,000 CY 11.16 AC
LAXT 550,000 CY 12.28 AC
TOTAL 1,400,000 CY 23.44 AC
AA'
2.25:1
50'
2.25:1
-50'
CONTAINER
BB'
2.25:1
50'
2.5:1
-72'
LAXT
WORLDPORT LA
DRAWING NUMBER

FIGURE IX

PIER 300
CONTAINER TERMINAL
FOURTH BERTH

EXISTING
SHALLOW
WATER
HABITAT

AREA A	56,000 CU. YARDS FILL
	1.37 ACRES SHALLOW BOTTOM LOST
AREA B	115,000 CU. YARDS DREDGE

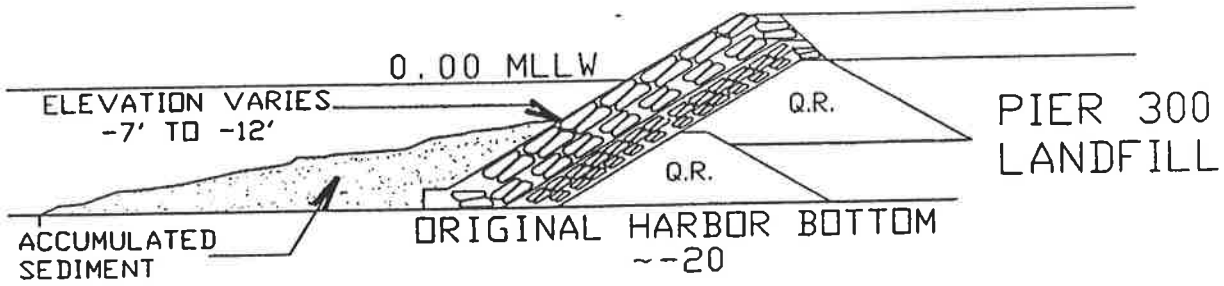


NOT TO SCALE

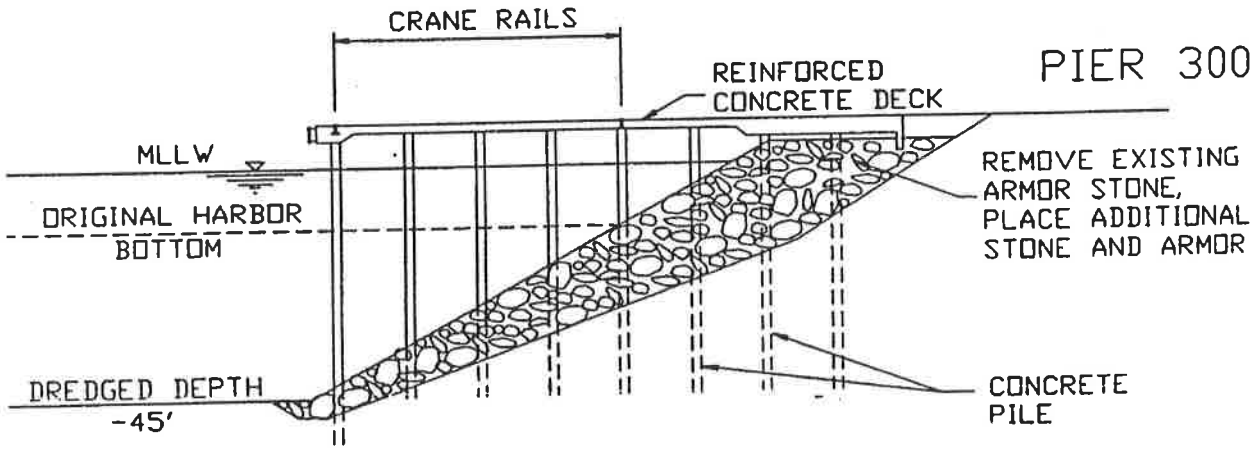
WORLDPORT LA

PIER 300

EXISTING CONDITIONS



CONCEPTUAL WHARF DESIGN



WORLDPORT LA

FIGURE XI

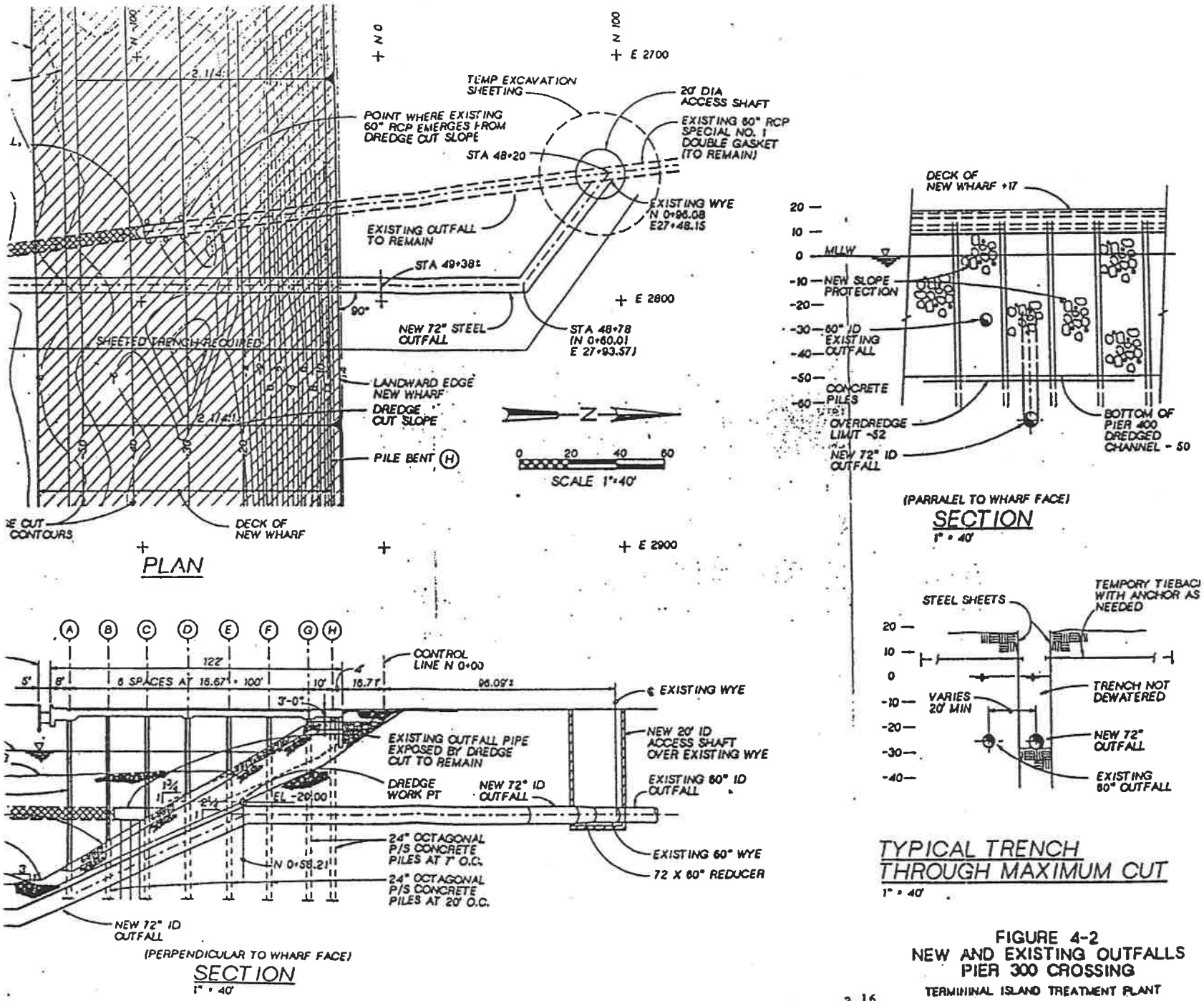


FIGURE 4-2
NEW AND EXISTING OUTFALLS
PIER 300 CROSSING
TERMINAL ISLAND TREATMENT PLANT

FIGURE XII

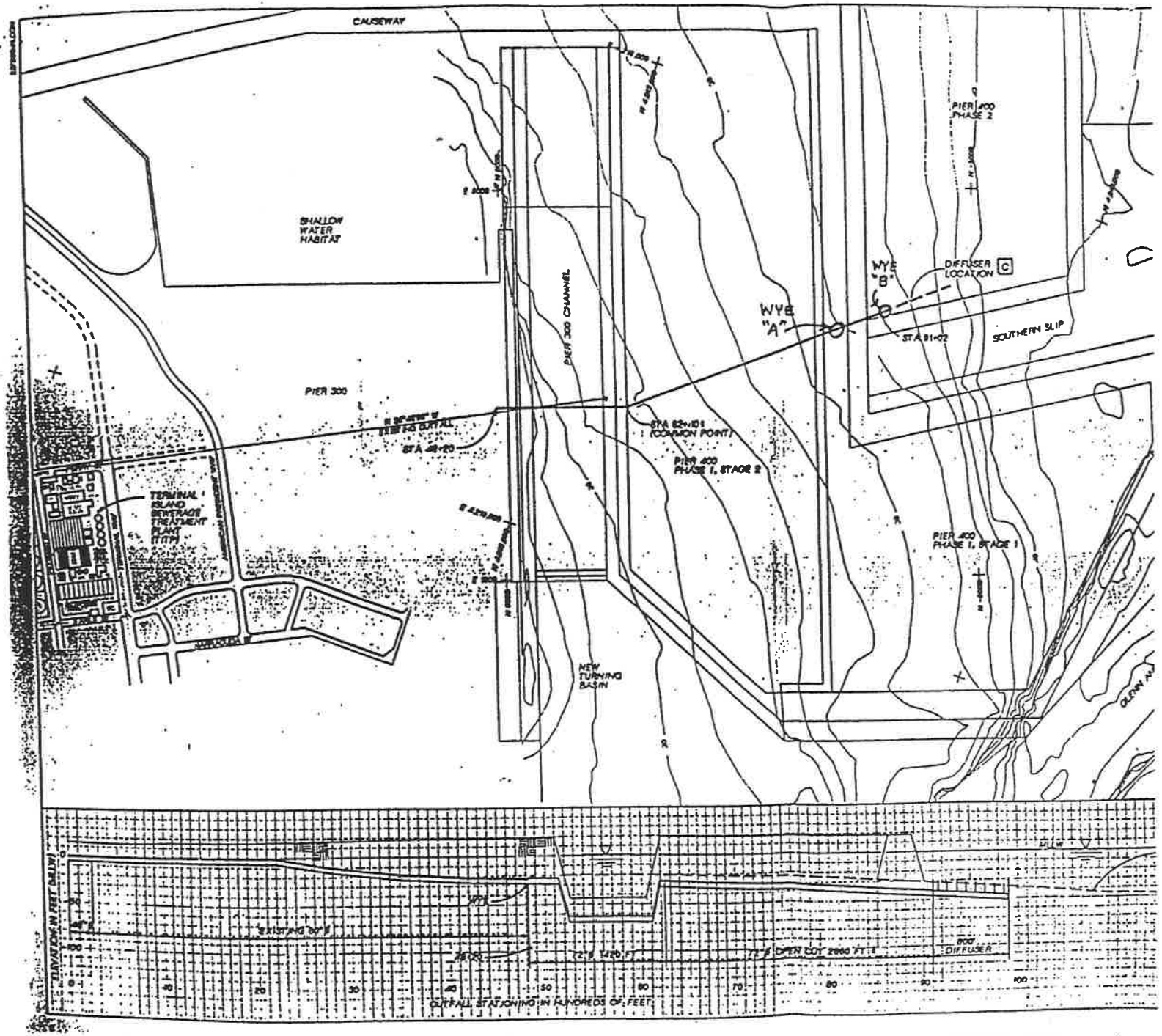

CAUSEWAY
SHALLOW WATER HABITAT
PIER 300
PIER 300 CHANNEL
WYE "A"
WYE "B"
DIFFUSER LOCATION C
PIER 400 PHASE 2
SOUTHERN SLIP
STA 81+02
STA 82+101 (COMMON POINT)
PIER 400 PHASE 1, STAGE 2
PIER 400 PHASE 1, STAGE 1
TERMINAL ISLAND SEWERAGE TREATMENT PLANT (TITP)
NEW TURNING BASIN
OUTFALL STATIONING IN HUNDREDS OF FEET
DIFFUSER

FIGURE XIII

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, Governor

STATE WATER RESOURCES CONTROL BOARD
PAUL R. BONDERSON BUILDING
901 P STREET
P.O. BOX 100
SACRAMENTO, CALIFORNIA 95812-0100
916/657-0941
FAX: 916/657-0932

JUN 24 1994

94-003241

Mr. Vernon E. Hall
Port of Los Angeles
P.O. Box 151
San Pedro, CA 90733-0151

Dear Mr. Hall:

CONDITIONAL CERTIFICATION UNDER CLEAN WATER ACT (CWA) SECTION 401: LOS ANGELES HARBOR, PIER 400 DEVELOPMENT (PHASE I), PIER 300 DEVELOPMENT, AND TERMINAL ISLAND TREATMENT PLANT (TITP) OUTFALL MODIFICATION

This letter responds to your request for CWA Section 401 Water Quality Certification in connection with the subject project. The project would be authorized by the U.S. Army Corps of Engineers (Corps) under an individual permit. The project involves extensive navigation and berthing improvements in Los Angeles Harbor, including dredging of 30 million cubic yards of material to deepen navigation channels, creation of new land surface, placement of 38,000 linear feet of rock dike and armor, replacement of original stone and armor with steel or concrete piles, and modification of the existing TITP outfall structure.

Project impacts would include fill of 320.4 acres of deep water, soft bottom habitat; fill of 155.9 acres of shallow water habitat, and conversion of 189.5 acres of deep water habitat to shallow water habitat.

Soft bottom, deep water habitat would be mitigated at the Bataquitos Lagoon Wetland Restoration Project at a compensation ratio of 1:1. Shallow water habitat would be replaced within Los Angeles Harbor at a compensation ratio of 2:1 for filled shallow water habitat and 1:1 for shallow water habitat converted to deep water habitat through dredging. The new shallow water habitat will be created in conjunction with capping existing and relocated polluted sediments with clean dredged material. A least tern nesting site will be elevated to minimize lighting and glare impacts.

In a May 23, 1994 memorandum (enclosed), staff of the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) has reviewed the project in greater detail and has recommended

conditional certification. I hereby certify the proposed project, subject to compliance with all conditions specified in the enclosed RWQCB memorandum.

If you require further assistance, please feel free to telephone Oscar Balaguer, who can be reached at 916/657-1025. You may also call William Campbell, Chief of the Nonpoint Source Loans and Certification Unit, at 916/657-1043.

Sincerely,

for Walt Pettit
Executive Director

Enclosure

cc: (all with enclosure)
Dr. Robert P. Ghirelli
Executive Officer
California Regional Water Quality
Control Board, Los Angeles Region
101 Centre Plaza Drive
Monterey Park, CA 91754-2156

Colonel R. L. VanAntwerp
District Engineer, Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, CA 90053

Mr. Clyde Morris, Chief (W-7-2)
Permits and Enforcement Section
U.S. Environmental Protection Agency,
Region 9
75 Hawthorne Street
San Francisco, CA 94105

Mr. Fred A. Worthley
Department of Fish and Game,
Region V
330 Golden Shore, Suite 50
Long Beach, CA 90802

Ms. Gail C. Kobetich
Field Supervisor
Carlsbad Field Office
U.S. Fish and Wildlife Service
2730 Locker Avenue West
Carlsbad, CA 92008

State of California

Enclosure

Memorandum

To : Mr. Walt Pettit
Executive Director
State Water Resources Control Board

Date: May 23, 1994

File :

Robert P. Ghirelli

Robert P. Ghirelli, D.Env.
Executive Officer

From : CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—LOS ANGELES REGION
101 Centre Plaza Drive, Monterey Park, CA 91754-2156
Telephone: (213) 266-7500

Subject : **401 WATER QUALITY CERTIFICATION - STAGE I PIER 400 DEVELOPMENT, PIER 300 CONTAINER AND DRY BULK TERMINALS DEVELOPMENT, AND TERMINAL ISLAND TREATMENT PLANT OUTFALL MODIFICATION PROJECTS, LOS ANGELES HARBOR, SAN PEDRO, LOS ANGELES COUNTY**

Port of Los Angeles (POLA) has applied for a Section 404 Individual Permit from the U.S. Army Corps of Engineers (Corps) for the above proposed projects in Los Angeles Harbor. In response to a request from Vernon E. Hall from POLA (425 South Palos Verdes Street, P.O. Box 151, San Pedro, CA 90733-0151) for a Section 401 Water Quality Certification (WQC), staff has reviewed the proposed fill activities associated with this project and has the following comments.

Waste discharge requirements (Order No. 94-029) were issued on April 4, 1994, for the proposed dredge and fill operations in the Pier 300 and Stage I Pier 400 areas of the Los Angeles Harbor. In response to comments received from Heal the Bay, the California Coastal Commission (CCC), and Madelyn Glickfeld (commenting as a concerned citizen, not as a representative of the CCC), Regional Board staff met with these parties and with the applicant to discuss the project and attempt to resolve specific water quality issues. Certain components of the project description, certification conditions and the monitoring program associated with the waste discharge requirements have been modified as a result of these discussions.

The Pier 400 project represents the Federal Deep Draft Navigation Improvements Project, which is divided into two stages and calls for four Increments (Increments Two through Five) of navigation channel improvements coupled with the creation of 582 acres of new landfill within Los Angeles Harbor. The Stage I Pier 400 project would consist of dredging the Increment Two and Four navigation channels with in-harbor disposal of dredge material to create new land at Pier 400 and dredging a short segment of the Increment Five navigation channel to accommodate berthing of vessels at the Pier 300 container terminal wharf. The channel improvements resulting from the Pier 400 project will facilitate the completion of Pier 300 wharf construction. The Stage II Pier 400 project will be addressed in a separate future Corps permit and Water Quality Certification (WQC).

The Pier 300 project consists of a container terminal and a dry bulk terminal. The container terminal involves construction of a four-berth wharf, 200 acres of container storage, least tern nesting site, intermodal container transfer facility (ICTF), roadways, Seaplane Lagoon shoreline improvement and Seaside Avenue/Navy Way grade separation. Construction of the facilities would entail removal of existing piles of surcharge material, which would be used to elevate the least tern nesting site by 8 feet to minimize lighting and glare impacts. ICTF would require shoreline improvement, which includes removal of the existing bulkhead, reconfiguration and straightening of the shoreline, dredging of a linear strip of ocean bottom parallel to the shoreline, and construction of a protective wall of riprap or a concrete or steel bulkhead. The dry bulk terminal would have a 105-acre remote storage yard with new road and rail access, a 19-acre near-berth storage area, and one shiploading berth. In addition, the Terminal Island Treatment Plant (TITP) outfall at Pier 300 would be extended approximately 6000 feet with a new 600-foot multi-port diffuser.

The project activities involve: (1) dredging of 30 million cubic yards of material to deepen navigation channels to -63 feet mean lower low water (MLLW) for Increment Two and -45 feet MLLW for Increment Four and a portion of Increment Five (Pier 400/300 projects) and to a range of -72 to -30 feet MLLW for the TITP pipeline extension; (2) placement of 38,000 linear feet of rock dike and armor to construct 191.5 acres (measured at Mean High Water(MHW)) of new land, and 65.1 acres of an access/transportation corridor with a 350-foot opening (Pier 400 project); (3) construction of a 189.5-acre (measured at -20 feet MLLW) shallow water habitat (SWH) at the San Pedro Breakwater (mitigation for Pier 400/300 dredging); (4) replacement of original stone and armor to construct wharves with steel or concrete piles at Pier 300 and shoreline improvement at Seaplane Lagoon; and (5) modification of the existing TITP outfall structure and, later, construction of a new outfall structure.

The dredging activities would occur along the south face of Pier 300 and extend towards Angels Gate as shown in Figure II. The majority of the dredged material would be used to create the Pier 400 landfill and transportation corridor. However, fine-grained sediments deemed unsuitable by the Port for construction of the landfill would be used to create the SWH site at the San Pedro Breakwater.

Approximately 800,000 cubic yards of dredged material from the south face of Pier 300 (including approximately 350,000 cubic yards of material containing elevated levels of several chemical constituents and approximately 450,000 cubic yards of clean fine-grained material) would be evenly distributed (average thickness of approximately 4 to 5 feet) along the north side of the proposed

permanent SWH site at the San Pedro Breakwater. This material would be placed over existing sediments with elevated levels of several chemical constituents. The entire area of the SWH site then would be covered with approximately 7 million cubic yards of clean dredged fine-grained material (average thickness of approximately 15 feet), which would cap and prevent reexposure of the underlying contaminated sediments. A final cover (average thickness of approximately 2 feet) of clean dredged sand (approximately 0.5 million cubic yards) would be placed over the SWH site to create a final elevation of -20 feet MLLW or above. It would take 3 to 4 months to dredge and fill 800,000 cubic yards of dredged material from the south face of Pier 300. The entire operation at the permanent SWH is expected to require 27 months for completion.

Construction of the new TITP outfall line, south of Pier 300, would involve changing the existing pipeline depth, through dredging, from -25 feet MLLW to -72 feet MLLW to accommodate channel improvements. In addition, the 72-inch inside diameter (ID) pipeline would be extended beyond the proposed Pier 400 location. The depth of the line, after crossing the channel between Pier 300 and the proposed Pier 400, would rise to -30 feet MLLW as it crosses beneath the proposed Pier 400 site. This pipeline would terminate 200 feet beyond the southeast face of the proposed Stage I Pier 400. A multi-port diffuser would be installed at the end of the discharge pipe at an average depth of -34 feet MLLW. The existing 60-inch ID outfall pipeline would be removed after sediments that cover the existing outfall pipeline are dredged.

The proposed Stage I Pier 400/300 projects would result in the fill of 320.4 acres (measured at the existing harbor bottom) of deep water, soft-bottom habitat for landfill creation (224.1 acres) and the access corridor (96.3 acres). In addition, 155.9 acres of shallow water habitat would be impacted by the Stage I Pier 400 project due to channel construction (110 acres), access corridor construction and fill of the area of water contained at the far northern end of the corridor next to the existing Navy Mole (45 acres), and Seaplane Lagoon shoreline improvement (0.9 acre). The channel construction impacts are considered temporary impacts and will result in the conversion of the SWH to deep water habitat. The proposed Pier 300 wharf and dike construction would also impact 10.5 acres of soft-bottom habitat and 1.4 acres of shallow water habitat.

Soft-bottom, deep water habitat loss would be mitigated off-site at the Batiquitos Lagoon Wetland Restoration Project (383 acres) at a compensation ratio of 1:1. Shallow water habitat loss would be replaced within the Los Angeles Harbor near the San Pedro Breakwater (at least 189.5 acres) at a compensation ratio of 2:1 for permanent impacts and 1:1 for impacts resulting in conversion

of shallow water habitat to deep water habitat. Any excess credits would be utilized as mitigation towards future impacts of Stage II construction. Due to scheduling conflicts between Pier 400/300 channel dredging and Pier 300 wharf construction, shallow water habitat loss would be temporarily replaced until the permanent Shallow Water Habitat is completed. This would allow dredging to occur at the south face of Pier 300 for wharf construction. The 111.7-acre temporary shallow water habitat areas include a 79.5-acre area (SWHA) at the southernmost end of the proposed Stage I access/transportation corridor and a 32.2-acre site (SWHB) adjacent to an existing shallow water habitat area. SWHA and SWHB would be reduced to 37 and 16.8 acres, respectively, when construction of the transportation corridor occurs. SWHA would be filled as part of Stage II Pier 400 construction.

Environmental benefits to be gained from the project include: (1) establishment of a SWH with improved habitat value; (2) removal of exposed contaminated sediment from the southern face of Pier 300; and (3) capping of contaminated sediment at the proposed permanent SWH site. In addition, the modified design of the transportation corridor with a 350-foot opening would improve circulation of water enclosed by Pier 300, Pier 400, and Seaplane Lagoon. This design would also reduce the possibility of trapping pollutants inside the basin.

Staff does not object to issuance of Section 401 Water Quality Certification for the proposed project with the following conditions:

1. The applicant shall comply with the Waste Discharge Requirements issued by this Regional Board (Order No. 94-029) for activities associated with dredge and fill operations in the Pier 300 and the proposed Stage I Pier 400 areas of Los Angeles Harbor.

2. The applicant shall implement the revised Monitoring and Reporting Program No. 7377, including any subsequent modifications made by the Regional Board (see Attachment 1).

3. The SWHA (32 acres) to be filled during the Stage II Pier 400 project shall be considered as part of the original deep water, soft bottom habitat existing at the proposed Stage II Pier 400 site and shall be mitigated accordingly.

4. The mitigation areas, Batiquitos Lagoon and Permanent Shallow Water Habitat, shall be preserved in perpetuity as coastal wetland and shallow water habitats, respectively.

5. The final mitigation plans to be developed by the applicant shall be submitted to U.S. Fish and Wildlife Service,

California Department of Fish and Game, and National Marine Fisheries Service for their review and concurrence.

6. The applicant shall mitigate the permanent impacts to deep water habitat at a compensation ratio of at least 1:1. The applicant shall also mitigate the permanent impacts to shallow water habitat and impacts resulting in conversion of shallow water habitat to deep water habitat at a compensation ratio of at least 2:1 and at least 1:1, respectively.

7. All activity shall follow best management practices in such a way as to minimize impacts on water quality and beneficial uses.

8. The applicant shall prevent any water runoff from dust control activities during the upland construction period.

9. Prior to inland disposal of excavated material from Pier 300, other than onsite cut and fill activities, the applicant shall obtain general waste discharge requirements for disposal of non-hazardous soils from this Regional Board.

10. Due to the potential contamination from the original source of material (harbor sediments), the excavated upland material from Pier 300 shall be characterized for USEPA priority pollutants before it is transferred and used as fill material. The applicant shall submit the data to this Regional Board (Attention: Technical Support Unit) in accordance with this Regional Board's QA/QC requirements. The use of the excavated material as fill material shall only occur when approval has been given by this Regional Board.

11. Prior to any ground water discharge associated with construction activities, the applicant shall apply for a permit for groundwater dewatering activities from this Regional Board. No discharge to land or surface waters shall occur without approval from this Regional Board.

12. The applicant shall implement the appropriate mitigation measures pertaining to water quality as indicated in the Final Environmental Impact Reports including State Clearinghouse (SCH) No. 202087101408 (September 1992), SCH No. 92091029 (March 1993), SCH No. 92091030 (June 1993), and SCH No. 90010382 (September 1993).

13. The project proponent shall file a Notice of Intent to be covered under the State Board's "Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activity" (General Permit No. CAS000002) for the Pier 300 project. A copy of the Storm Water Pollution

Prevention Plan (SWPPP) required by the General Permit shall be submitted to this Regional Board (Attn: Surveillance) prior to any construction activity.

14. Prior to upland construction of Pier 400, the project proponent shall fill a Notice of Intent to be covered under the State Board's "Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activity" (General Permit No. CAS000002) and submit a copy of the SWPPP required by the General Permit to this Regional Board (Attn: Surveillance).

15. After completion of all construction activities, the applicant shall comply with the local regulations associated with the Regional Board's municipal storm water permit issued to Los Angeles County and co-permittees under NPDES No. CA0061654 and Waste Discharge Requirements Order No. 90-079.

16. The applicant shall submit a Report of Waste Discharge to this Regional Board at least 180 days prior to any planned point-source discharge.

17. The applicant shall use silt curtains or other means (eg., environmentally-sealed clamshell dredge) to minimize the impacts resulting from the piling, dredging, and filling activities.

18. The applicant shall minimize the period of exposure of the sediments with elevated contaminant levels from the south of the Pier 300.

19. The Regional Board shall be notified immediately by telephone (followed by written confirmation within 48 hours) when a result from a water column sample analysis exceeds any of the following levels:

Arsenic	80 µg/l
Cadmium	10 µg/l
Chromium	20 µg/l
Copper	30 µg/l
Lead	20 µg/l
Mercury	0.4 µg/l
Nickel	50 µg/l
Silver	7 µg/l
Selenium	150 µg/l
Zinc	200 µg/l
DDT	18 ng/l
PCBs	0.019 ng/l
PAHs	8.8 ng/l
Tributyltin	1.4 ng/l

Dredging or fill operations for the 800,000 cubic yards of material with elevated contaminant levels from the south face of Pier 300 which may or appear to be contributing to exceedance of any of the above levels shall be discontinued immediately. Such operations may be resumed following consultation with the Regional Board and approval of the applicant's proposed action plan. In the event that the Regional Board does not respond to the applicant's proposal within 48 hours, the applicant may resume the dredge and fill operations in question.

20. The Regional Board shall be notified immediately by telephone (followed by written confirmation within 48 hours) when water column monitoring results (eg., light transmittance, dissolved oxygen) indicate significant differences between stations near dredging or fill operations (eg., Station C, Station D) and reference or control stations (eg., Station A, Station H). The applicant shall consult with the Regional Board to determine the need to modify dredge and fill operations or practices.

21. The Regional Board shall be notified immediately by telephone (followed by written confirmation within 48 hours) when sediment profiling camera (REMOTS) monitoring results indicate that sediment has escaped from the confined shallow water habitat disposal site. The applicant shall consult with the Regional Board and other appropriate agencies to determine the appropriate course of action.

22. Upon resolution of the Coastal Zone Consistency issue with the California Coastal Commission and appropriate notification to the Corps and this Regional Board (Attn: Surveillance), the State and Regional Boards will accept the Corps' permit modification authorizing the 1.4-acre Pier 300 landfill shown in Figures VII and X of the Public Notice (No. 88-011-CC).

23. The applicant shall submit a request to this regional Board (Attn: Surveillance) for a separate water quality certification for any modifications to the rocky-dike groin in Seaplane Lagoon which were not included in this application.

24. The applicant shall implement and abide by the "CAD Site Construction Monitoring Program" to be reviewed and approved by U.S.E.P.A..

Should you have any questions or need additional information, please contact Rebecca Chou at (213) 266-7607 or Lauma Jurkevics at (213) 266-7609.

cc: Stan Martinson, Division of Water Quality
Bill Campbell, Non-point Source
enclosure

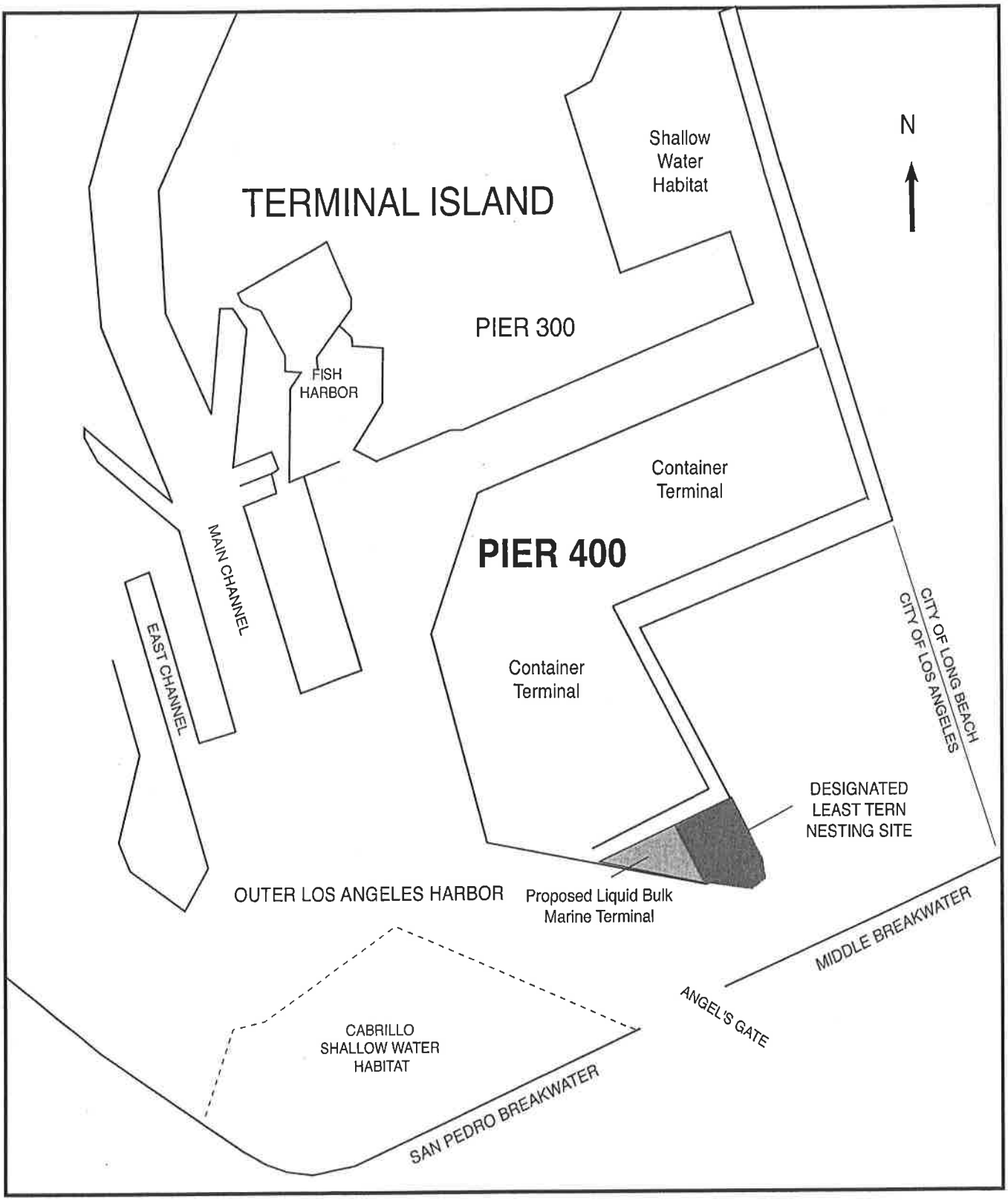


Exhibit D-1. Designated least tern nesting site and surrounding Port Areas.