

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
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Staff: CP-LB
Staff Report: 2/16/2006
Hearing Date: March 7, 2006
Commission Action:



Tu4c

STAFF REPORT: CONSENT CALENDAR

APPLICATION NUMBER: 5-05-438

APPLICANT: City of Long Beach

AGENT: Jeff Edwards, Department of Parks, Recreation and Marine

PROJECT LOCATION: On the beach, between 1st Place and Junipero Avenue (West Beach), and between 54th and 72nd Places (Peninsula Beach), City of Long Beach.

PROJECT DESCRIPTION: Beach nourishment using suitable dredged material from Queensway Bay, Alamitos Bay, and the Alamitos Bay entrance channel.

LOCAL APPROVAL: Long Beach Planning Dept. Approval in Concept, 9/14/2005.

SUMMARY OF STAFF RECOMMENDATION

A coastal development permit is required from the Commission for the proposed beach nourishment project because it involves development on State Tidelands within the Commission's area of original jurisdiction. Pursuant to Section 30519 of the Coastal Act, any development located within the Commission's area of original jurisdiction requires a coastal development permit from the Commission. The Commission's standard of review for the proposed event is the Chapter 3 policies of the Coastal Act.

This coastal development permit is only for the deposition of suitable dredged material for beach nourishment. The actual dredging activity, although regulated by the U.S. Army Corps of Engineers and the California Regional Water Quality Control Board, is exempt from coastal development permit requirements because it is required for the maintenance of existing navigational channels. Pursuant to Section 30610(c) of the Coastal Act, maintenance dredging done pursuant to a U.S. Army Corps of Engineers permit is exempt from coastal development permit requirements.

Staff is recommending that the Commission **APPROVE** a coastal development permit for the proposed project with special conditions that address compatibility of the dredged material with the deposition sites, timing of the project, protection of marine resources, conformance with the requirements of resource agencies and assumption of risk. The City agrees with the recommendation. **See Page Two for the Motion.**

SUBSTANTIVE FILE DOCUMENTS:

1. City of Long Beach certified Local Coastal Program (LCP), July 22, 1980.
2. Coastal Development Permit 5-99-228 (City of Long Beach, Beach Nourishment).
3. Maintenance Dredging Master Sediment Sampling & Analysis Plan, City of Long Beach, by Tetra Tech, Inc., File No. 93-33, Revised July 2005.
4. Five-Year Dredging Plan, City of Long Beach, by Tetra Tech, Inc., August 2003.
5. U.S. Army Corps of Engineers Amended Permit No. 199915256-JLB.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution to **APPROVE** the coastal development permit application with special conditions:

MOTION: *"I move that the Commission approve the coastal development permit applications included on the consent calendar in accordance with the staff recommendations."*

Staff recommends a **YES** vote. Passage of this motion will result in approval of all the permits included on the consent calendar. An affirmative vote by a majority of the Commissioners present is needed to pass the motion.

I. Resolution: Approval with Conditions

The Commission hereby **APPROVES** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. Term of Permit Approval

The development authorized by this coastal development permit is limited to beach nourishment, subject to the following special conditions, using only suitable material dredged pursuant to U.S. Army Corps of Engineers Amended Permit No. 199915256-JLB.

2. Timing of Project

In order to reduce impacts on the grunion (*Leuresthes tenuis*), California brown Pelican (*Pelicanus occidentalis*) and the California least tern (*Sterna antillarum brownie*) during the grunion breeding runs and the pelican's and least terns' nesting and foraging season, no beach replenishment or sand moving activity shall occur during the period commencing March 15 and ending September 1.

3. Suitability of Materials

Prior to each dredging episode at each individual dredging location, the permittee shall sample the material to be dredged using the sampling methods described in the Maintenance Dredging Master Sediment Sampling & Analysis Plan, City of Long Beach, by Tetra Tech, Inc., File No. 93-33 (Revised July 2005) to determine the chemical and physical characteristics of the material using the standards approved by the EPA and the Regional Water Quality Control Board. The permittee shall provide a qualified expert (e.g., licensed professional civil engineer) at the dredge sites determine whether the materials to be dredged will be physically and chemically suitable for beach nourishment using the sediment compatibility criteria contained in the Maintenance Dredging Master Sediment Sampling & Analysis Plan, City of Long Beach, by Tetra Tech, Inc., File No. 93-33 (Revised July 2005).

Prior to commencement of dredging at a sample site, the results of each sampling episode, sediment characterization, and beach nourishment compatibility test shall be submitted for the review and approval of the Executive Director. Dredged material deemed suitable may be deposited at the approved deposition sites only after the Executive Director has concurred with a City determination that the materials to be dredged have been deemed "suitable" using the criteria contained in the sampling plan. All dredged material deemed "unsuitable" shall be disposed of at an approved location according to all federal, state and local regulations. If the disposal site is located in the coastal zone, a separate coastal development permit application shall be filed for the

disposal of the "unsuitable" material. All contracts involving the subject project shall include the above stated condition of approval.

4. Eelgrass Beds, Kelp Beds and Clam Beds

Prior to placement of any sand or deposition of any dredged material below the mean high tide line (MHTL), the permittee shall:

a) Survey and map any eelgrass (*Zostera marina*) beds, kelp beds or clam beds which may exist within the proposed deposition area. The survey shall also determine if the invasive alga *Caulerpa taxifolia* is present in the area.

b) Submit the map and survey of each proposed deposition area to the Executive Director and the California Department of Fish and Game to determine whether the proposed deposition would negatively impact any eelgrass (*Zostera marina*) beds, kelp beds or clam beds.

The placement of any sand or deposition of any dredged material below the mean high tide line (MHTL) shall be permitted only with a determination by the Executive Director, in consultation with the California Department of Fish and Game, that there will be no negative impact to eelgrass (*Zostera marina*) beds, kelp beds or clam beds. If *Caulerpa taxifolia* is found within the project or buffer areas, the applicants shall not proceed with the project until: 1) the applicant has revised the project to avoid any contact with *C. taxifolia*, or 2) the applicant provides evidence to the Executive Director that all *C. taxifolia* discovered within the project and/or buffer area has been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act. No revisions to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

5. Beach and Recreational Facility Closures

Beach area closures shall be minimized and limited to areas immediately adjacent to the project area (within 200 feet of the pipeline and deposition area). All beach areas and recreation facilities outside of the 200-foot radius shall remain open and available for public use during the normal operating hours. The beach bicycle path shall remain open and available for public use during normal operating hours.

6. Conformance with the Requirements of the Resource Agencies

The permittee shall comply with all requirements, requests and mitigation measures from the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project that may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations. No changes to the approved development shall occur without a Commission amendment to this coastal development permit or a new coastal

development permit, unless the Executive Director determines that no amendment or new permit is required.

7. Assumption of Risk

By acceptance of this permit, the applicant acknowledges and agrees: (i) that the site may be subject to hazards from seismic events, liquefaction, storms, waves, floods and erosion; (ii) to assume the risks to the applicants and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description

The City of Long Beach proposes to nourish its beaches using material dredged from navigational channels in Queensway Bay and Alamitos Bay (See Exhibits). Only dredged material deemed suitable using the sediment compatibility criteria contained in the Maintenance Dredging Master Sediment Sampling & Analysis Plan, City of Long Beach, by Tetra Tech, Inc., File No. 93-33 (Revised July 2005) is proposed to be used for beach nourishment. The dredging activities that will provide the beach nourishment material are being permitted by U.S. Army Corps of Engineers Amended Permit No. 199915256-JLB. The City proposes to pump suitable dredged material, via pipeline, from a hydraulic suction dredge onto the beach and the near shore intertidal areas where the beach has eroded from its former width (Exhibits #3&5). The suitable material (sand) would also be spread mechanically from the deposition sites with earthmovers. The proposed spreading of the dredged matter would fill intertidal and subtidal areas along the City's eroded shoreline between 1st Place and Junipero Avenue (West Beach), and between 54th and 72nd Places (Peninsula Beach).

The three proposed confined disposal facilities shown on the attached exhibits are temporary bermed sand areas where dredge material is placed on the beach above the high tide line (Exhibits #2-4). There are no structures, fences or bins. The confined disposal facility would be no larger than 100'x 100' (10,000 square feet). The dredge material would be pumped into the bermed areas for percolation and final mechanical conditioning. That is, the water in the dredged matter percolates downward through the sand column and the saturated sandy material is then aerated and mixed with dry sand. This is done with the City's normal beach maintenance equipment. Based on the production rates of the City's past dredging project, this procedure is typically done on a daily basis, until the dredging is completed. However, whenever better production rates are achieved due to the distance between the dredging site and the disposal area, a multiple cell disposal facility is constructed, where material overflows

from one cell to the next, increasing the retention time and minimizing discharge. As the dredging is being conducted, material placed on the beach is spread and distributed as part of the beach nourishment program. The proposed temporary disposal facilities will be removed from the beach, and the sand berms reincorporated into the beach, at the conclusion of the dredging episode.

The Maintenance Dredging Master Sediment Sampling Plan prepared by the City's marine consultants (Tetra Tech, Inc.) provides a system to sample and analyze the sediments to be dredged on a case-by-case basis in order to determine whether the dredged material is suitable for deposition on the City's beaches. The sediment sampling and analysis will be performed in accordance with standard procedures promulgated by the U.S. Environmental Protection Agency and the Regional Water Quality Control Board. Only dredged material deemed "suitable" by an expert in the field (e.g., licensed professional civil engineer) will be used for beach nourishment. Any dredged material deemed "unsuitable" for beach deposition would be disposed of at a location outside of the coastal zone, or at location within the coastal zone where such activity is properly permitted.

This permit application addresses only the proposed deposition of suitable dredged material for beach nourishment. Pursuant to Section 30610(c) of the Coastal Act, maintenance dredging of existing navigational channels done pursuant to an approved U.S. Army Corps of Engineers permit is exempt from coastal development permit requirements. The City's maintenance dredging operation is being permitted by U.S. Army Corps of Engineers Amended Permit No. 199915256-JLB. That permit, good for five years, permits no more than 90,000 cubic yards of material to be dredged during each annual dredge season, which runs from September 1 to March 15. Therefore, the actual dredging activity, which the City must do to maintain its existing navigational channels, is exempt from coastal development permit requirements.

The Commission has previously approved beach nourishment projects in Long Beach. In 1994, the Commission approved Coastal Development Permit 5-94-103 (City of Long Beach) to permit the use of suitable dredged material for beach nourishment during the 1994-1999 maintenance dredging operation permitted by the extension of U.S. Army Corps of Engineers Permit No. 88-110-KK. In 1999, the Commission approved Coastal Development Permit 5-99-228 (City of Long Beach) for a five-year term that coincided with the maintenance dredging authorized pursuant to U.S. Army Corps of Engineers Permit No. 199915256-TJE.

B. Marine Resources

During the City's maintenance dredging activities, the dredged material deemed suitable will be deposited on the beach and on the near shore area below the mean high tide line (MHTL). The placement of any material below the MHTL is fill as defined by Section 30108.2 of the Coastal Act. Section 30233 of the Coastal Act allows filling of coastal waters (or wetlands) only where feasible mitigation measures have been provided to minimize adverse environmental effects, and for only the following eight uses listed in Section 30233(a) of the Coastal Act:

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

- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and necessary support service facilities, shall not exceed 25 percent of the degraded wetland.
- (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- (7) Restoration purposes.
- (8) Nature study, aquaculture, or similar resource dependent activities.

In this case, the proposed fill would restore former public beach areas where erosion has narrowed the width of the beach. Sand deposition for beach restoration is an allowable use of fill pursuant to Section 30233(a)(6) of the Coastal Act.

In regards to beach replenishment, Section 30233(b) of the Coastal Act requires that suitable dredge materials should be transported to appropriate beaches for such purposes. This is the activity for which the City is requesting a coastal development permit. The proposed use of dredged material for beach nourishment will partially mitigate the ongoing erosion of the City's beaches, helping to protect and encourage recreational use of the beach and help to protect existing structures along the City's shoreline.

Section 30233(b) of the Coastal Act states:

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

Section 30233 of the Coastal Act of the Coastal Act allows the proposed deposition of dredge material for beach restoration only if it is planned and carried out to avoid significant disruption to marine habitats and water circulation, and where feasible mitigation measures have been

provided to minimize adverse environmental effects. Coastal Act Sections 30230 and 32031 also require that the proposed development be carried out in a manner that protects water quality, biological productivity and marine resources.

Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

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

Therefore, specific mitigation measures must be implemented in order to ensure that water quality, biological productivity and marine resources are protected as required by the above-stated Coastal Act policies.

The proposed deposition sites are beaches where grunion are known to spawn. The waters in the project area are also used as a feeding area by the endangered California brown Pelican (*Pelicanus occidentalis*) and the endangered California least tern (*Sterna antillarum brownie*). Therefore, In order to reduce minimize any adverse impact that that the proposed activity's may have on these species, the permit is conditioned so that development is not permitted during the period commencing March 15 and ending September 1. The period between March 15 and September 1 is the primary grunion-spawning season as well as the least tern's nesting season. The U.S. Army Corps of Engineers (Amended Permit No. 199915256-JLB) also limits dredging and disposal activities during these times.

The proposed beach nourishment activities could also adversely impact eelgrass beds, kelp and clam beds by burying these important resources with sand. In 1999, when the Commission most recently approved a beach nourishment project in Long Beach, the California Department of Fish and Game was concerned that that the beach nourishment activities would adversely impact eelgrass beds and clam beds and recommended the avoidance of impacts to these resources (Coastal Development Permit 5-99-228). The U.S. Army Corps of Engineers Permit (Amended Permit No. 199915256-JLB) requires the City to conduct eelgrass surveys prior to dredging, and limits dredging activities in all areas where eelgrass is found. The deposition of dredge materials on the beach above the mean high tide line would not affect eelgrass beds, kelp and clam beds.

Therefore, the permit is conditioned to require that the City survey and map the proposed beach nourishment areas located below the MHTL prior to placement of any sand or deposition of any dredged material. The surveys shall determine whether any eelgrass (*Zostera marina*) beds, kelp beds or clam beds exist within the proposed deposition area. The survey shall also determine if the invasive alga *Caulerpa taxifolia* is present in the area. The map and survey of each proposed deposition area shall be submitted to the Executive Director and the California Department of Fish and Game to determine whether the proposed deposition would negatively impact any eelgrass (*Zostera marina*) beds, kelp beds or clam beds. The condition of approval states that placement of any sand or deposition of any dredged material below the mean high tide line (MHTL) shall be permitted only with a determination by the Executive Director, in consultation with the California Department of Fish and Game, that there will be no negative impact to eelgrass (*Zostera marina*) beds, kelp beds or clam beds. Only as conditioned is the proposed project consistent with the marine resource sections of the Coastal Act.

The resource agencies may require further mitigation measures to minimize or avoid impacts to marine resources. Therefore, a condition of approval requires the permittee to comply with all permit requirements and mitigation measures of the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project which may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed changes shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

The marine environment will also be protected by conditioning the permit to ensure that all dredged material is physically and chemically suitable for the beach and compatible with the existing beach sand at the deposition sites. A qualified expert (e.g., licensed professional civil engineer) is required to inspect the dredged material to determine if the material is suitable for deposition at the approved beaches. Dredged material deemed suitable may be deposited at the approved deposition sites only after the Executive Director has concurred with a City determination that the materials to be dredged have been deemed "suitable" using the criteria contained in the sampling plan. The expert is required to use the sediment compatibility criteria contained in the Maintenance Dredging Master Sediment Sampling & Analysis Plan, City of Long Beach, by Tetra Tech, Inc., File No. 93-33 (Revised July 2005) when determining the suitability of the dredged material (Exhibit #4).

Therefore, only as conditioned to mitigate and avoid impacts to marine resources does the Commission find the proposed project to be consistent with Sections 30230, 30231 and 30233 of the Coastal Act.

C. Recreation and Public Access

The proposed project will partially mitigate beach erosion and provide for the continuing and increased recreational use of the City beaches by the public. The proposed beach replenishment will increase the size of the beach and will provide a larger area for recreational use. Therefore, the proposed project, as conditioned, is consistent with the following Coastal Act policies which encourage public access and recreational use of coastal areas.

Section 30210 of the Coastal Act states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30213 of the Coastal Act states:

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

Section 30221 of the Coastal Act states:

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

The project will temporarily impact the use of some portions of the beach during the deposition of the dredged material. However, because the permit is conditioned to prohibit replenishment during the least tern nesting season and grunion spawning season (March 15-Sept.1), public access and recreation will not be impacted during the peak summer season. When the proposed work on the beach is permitted to occur, a condition of the permit requires the City to minimize beach area closures by limiting closed beach areas to an area not to exceed two hundred feet from the pipeline and deposition area.

The long-term benefits of beach nourishment offset the temporary reduction in beach use by providing a larger, more stable beach for public recreation. Further, as conditioned, the impacts of the proposed development on access and recreation have been minimized. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30210, 30213 and 30221 of the Coastal Act.

D. Local Coastal Program

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act:

(a) Prior to certification of the Local Coastal Program, a Coastal Development Permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3

(commencing with Section 30200). A denial of a Coastal Development Permit on grounds it would prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for such conclusion.

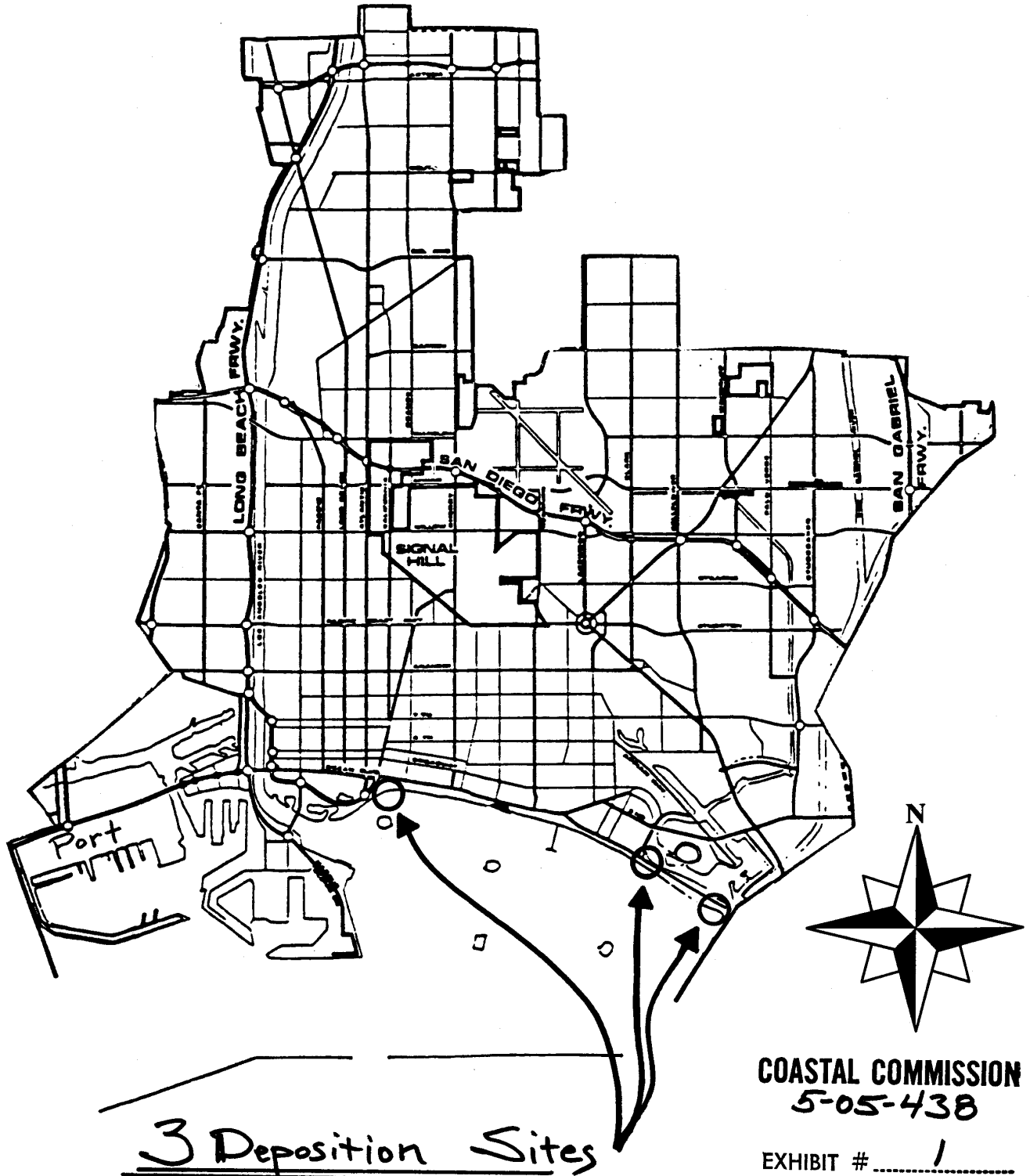
The City of Long Beach Local Coastal Program was certified by the Commission on July 22, 1980. The certified Local Coastal Program requires the City to repair beach erosion and develop a sand management plan (LCP, p. 63). The City has prepared a sand management plan which includes the replenishment of beach sand with dredged material. The proposed project complies with the policies of the certified LCP. However, because the project is located seaward of the former mean high tide line, in the Commission's area of original jurisdiction, the LCP is advisory in nature and may provide guidance. The standard of review for this project is the Coastal Act. The proposed project, as conditioned, is consistent with the policies of Chapter 3 of the Coastal Act, as required by Section 30604(a).

E. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires Commission approval of coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act. Mitigation measures, in the form of special conditions, require a) avoidance of sensitive habitat; b) use of suitable materials; and, c) limiting the activity to as to not disrupt breeding and foraging of endangered and sensitive species. As conditioned, there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and complies with the applicable requirements of the Coastal Act to conform to CEQA.

City of Long Beach



3 Deposition Sites

COASTAL COMMISSION
5-05-438

EXHIBIT # 1
PAGE 1 OF 1

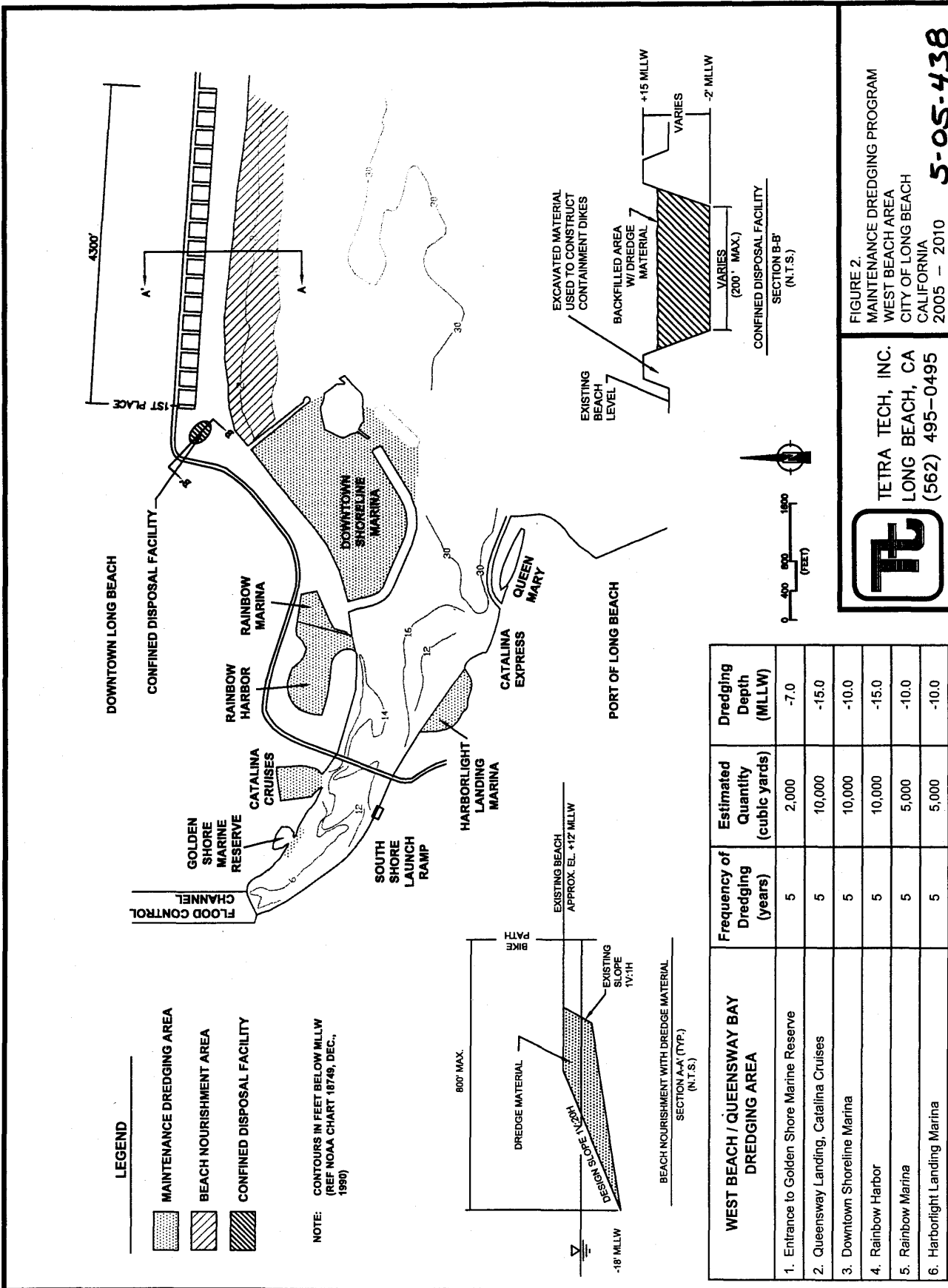


FIGURE 2.
 MAINTENANCE DREDGING PROGRAM
 WEST BEACH AREA
 CITY OF LONG BEACH
 CALIFORNIA
 2005 - 2010

TE

TETRA TECH, INC.
 LONG BEACH, CA
 (562) 495-0495

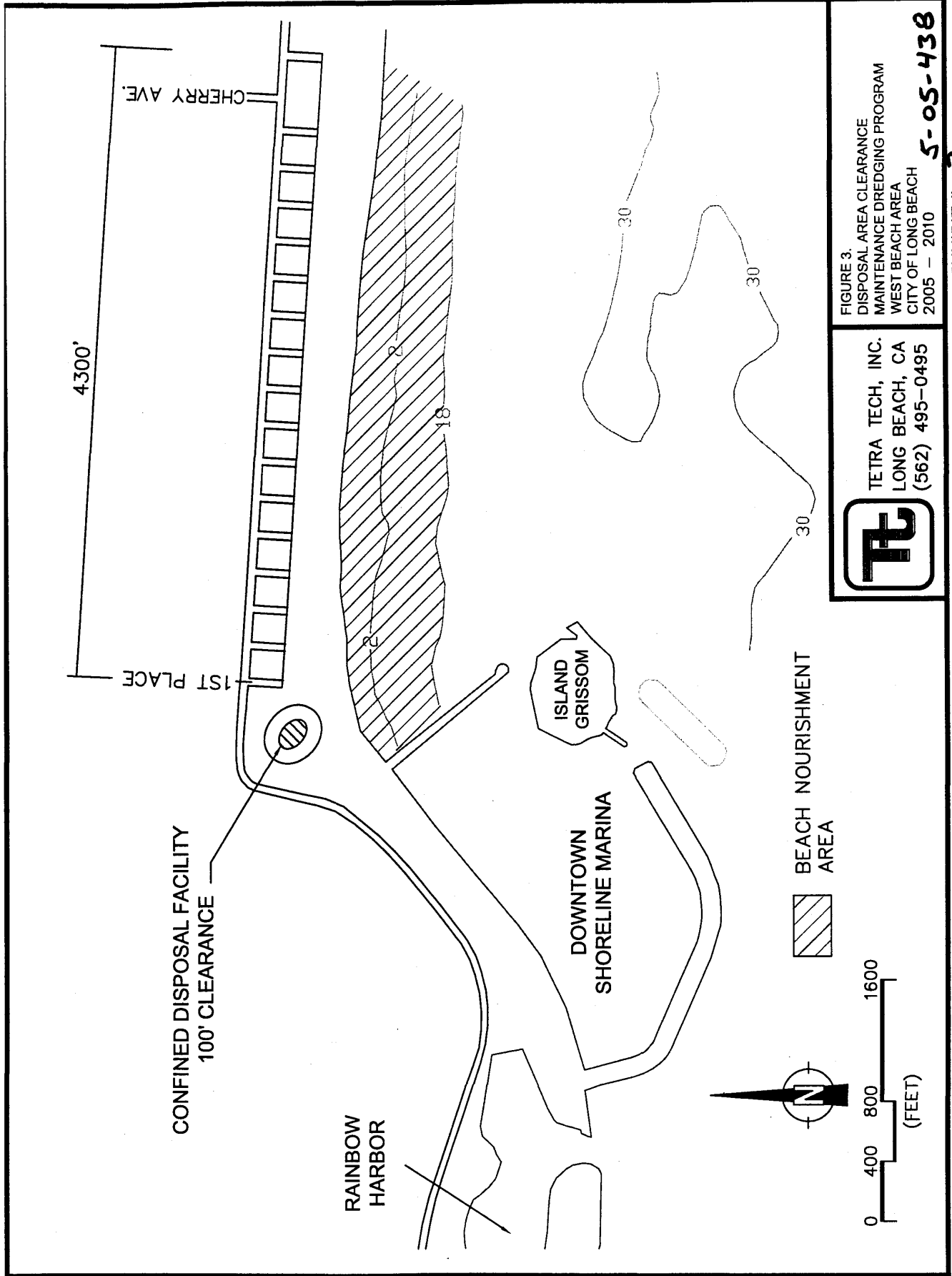


FIGURE 3.
DISPOSAL AREA CLEARANCE
MAINTENANCE DREDGING PROGRAM
WEST BEACH AREA
CITY OF LONG BEACH
2005 - 2010




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TETRA TECH, INC.
LONG BEACH, CA
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5-05-438

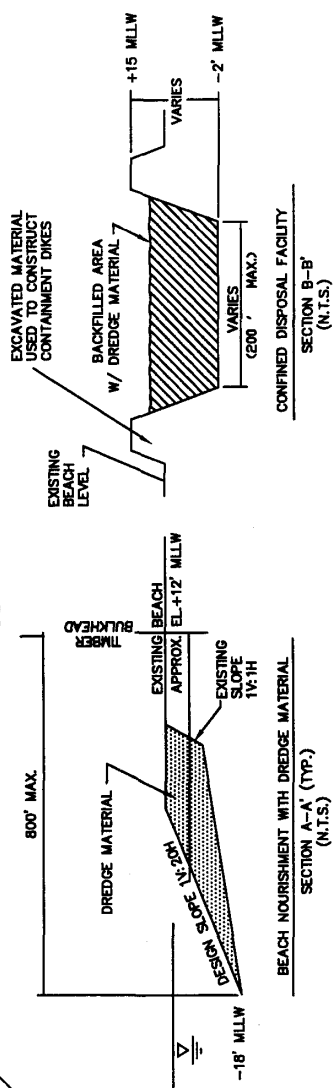
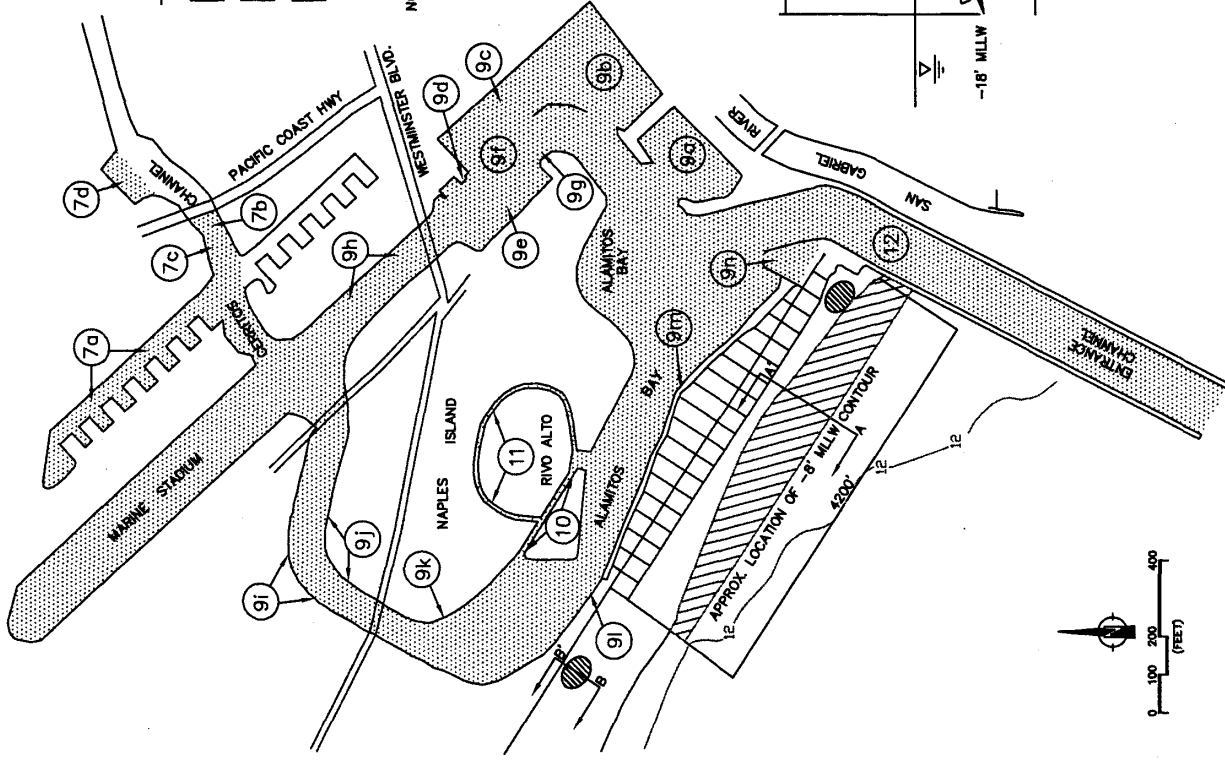
EAST BEACH / ALAMITOS BAY DREDGING AREA	Frequency of Dredging (years)	Estimated Quantity (cubic yards)	Dredging Depth (MLLW)
7. Cerritos Channel	>5	2,000	-10.0
a. Spinnaker Cove	>5	1,300	-10.0
b. Basin 6	>5	2,000	-10.0
c. Basin 8	>5	500	-10.0
d. Cerritos Bahia Marina	>5	8,000	-10.0
8. Marine Stadium	>5	5,000	-15.0
9. Alamitos Bay	>5	10,000	-15.0
a. Basin 1*	3	4,000	-12 & -15
b. Basin 2*	>5	3,000	-10.0
c. Basin 3*	>5	15,000	-10.0
d. Long Beach Marina Shipyard*	>5	200	-10.0
e. Basin 4*	>5	16,000	-10.0
f. Basin Channel*	>5	8,000	-10.0
g. Long Beach Yacht Club Dock	>5	2,000	-15.0
h. Davies Long Dock	>5	2,000	-15.0
i. Bayshore	>5	10,000	-10.0
j. Sorrento Drive	>5	7,500	-10.0
k. The Toledo	>5	10,000	-10.0
l. Basin 7	>5	7,500	-15.0
m. Bayshore Walk	>5	3,000	-15.0
n. Basin 5	>5	5,000	-15.0
10. Naples Canal	>5	3,000	-8.0
11. Rivo Alto	>5	8,000	-8.0
12. Alamitos Bay Entrance Channel	1	26,000	-20.0

*Dredging at these sites is expected to occur under separate Marina Rebuild Projects.

LEGEND

-  MAINTENANCE DREDGING AREA
-  BEACH NOURISHMENT AREA
-  CONFINED DISPOSAL FACILITY

NOTE: CONTOURS IN FEET BELOW MLLW (REF NOAA CHART 18749, DEC., 1980)





TETRA TECH, INC.
 LONG BEACH, CA
 (562) 495-0495

FIGURE 4
 MAINTENANCE DREDGING PROGRAM
 EAST BEACH AREA
 CITY OF LONG BEACH
 CALIFORNIA
 2005 - 2010

5-05-438

EXHIBIT # **4**
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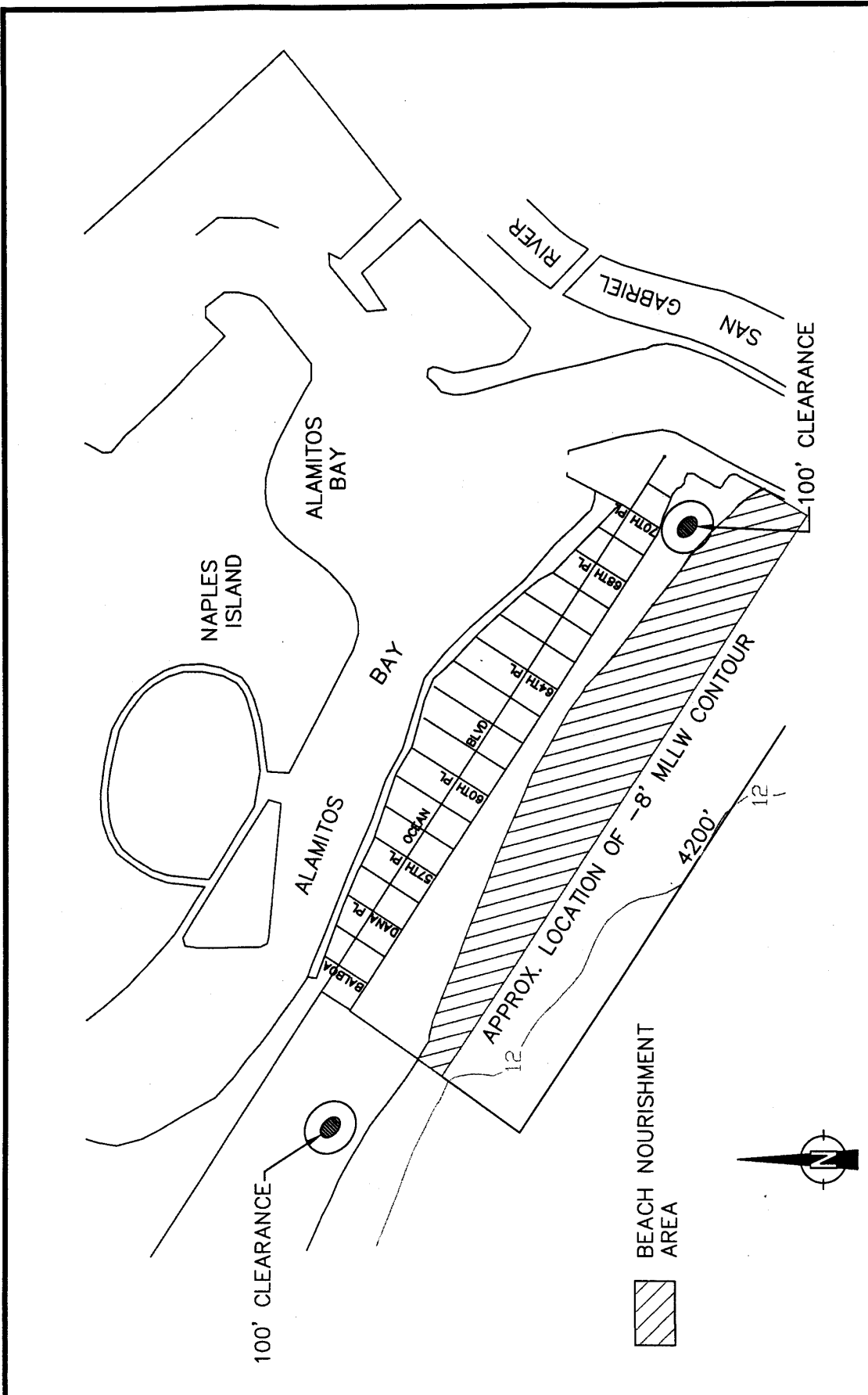


FIGURE 5
 DISPOSAL AREAS CLEARANCE
 MAINTENANCE DREDGING PROGRAM
 EAST BEACH AREA
 CITY OF LONG BEACH
 2005 - 2010

TT
 TETRA TECH, INC.
 LONG BEACH, CA
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5-05-438