October 7, 2013

Mr. Richard D. Cameron
Director of Environmental Planning
Port of Long Beach
925 Harbor Plaza
Long Beach, CA 90802

WASTE DISCHARGE REQUIREMENTS
PORT OF LONG BEACH FIVE-YEAR MAINTENANCE DREDGING (FILE NO. 92-11)

Dear Mr. Cameron:

Reference is made to our letter of August 12, 2013, which transmitted copies of tentative waste discharge requirements and a receiving water monitoring program for dredging and disposal of dredged material from the Port of Long Beach Five-Year Maintenance Dredging project within Long Beach Harbor in Long Beach, Los Angeles County.

In accordance with the California Water Code, this Board, at a public meeting held on October 3, 2013, at 9:00 a.m., Metropolitan Water District Board Room, 700 N. Alameda St., Los Angeles, California, reviewed the tentative requirements, considered all factors in the case, added language to clarify that all dredged material from the Pier J Turning Basin shall be beneficially re-used within the Middle Harbor Terminal Redevelopment Slip Fill, added language to require sediment toxicity and bioaccumulation testing of sediments prior to disposal of dredged material at the Western Anchorage Dredged Material Beneficial Re-Use and Disposal Site, added language to require that sampling and analysis plans include a discussion of how dredging operations relate and could be coordinated with TMDL requirements, and adopted Order No. R4-2013-0159 relative to this waste discharge (copy enclosed). The Standard Provisions, which were sent to you with the tentative requirements, were adopted without change and are part of this order.

All monitoring reports should be submitted electronically to the Regional Board via the GeoTracker database system (http://geotracker.waterboards.ca.gov). Reference all technical monitoring reports required by this Order to our Compliance File No. 7158. Please do not combine reports – each should be submitted as a separate document.

Should you have any questions, please telephone me at (213) 576-6718.

J. MICHAEL LYONS
Environmental Specialist IV

Enclosures

Cc: Bill Orme, Non-point Source Unit, SWRCB
Jennifer Fordyce, Office of Chief Counsel, SWRCB
Larry Simon, California Coastal Commission (San Francisco)
Jack Gregg, California Coastal Commission (San Francisco)
Bill Paznokas, California Department of Fish and Wildlife (San Diego)
Daniel Swenson, U.S. Army Corps of Engineers (Los Angeles)
Theresa Stevens, U.S. Army Corps of Engineers (Ventura)
Allan Ota, U.S. Environmental Protection Agency (San Francisco)
Carol Roberts, U.S. Fish and Wildlife Service (Carlsbad)
Bryant Chesney, National Marine Fisheries Service (Long Beach)
Kirsten James, Heal the Bay
Peter Shellenbarger, Heal the Bay
Matt Arms, Port of Long Beach
Janna Watanabe, Port of Long Beach

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2013-0159

WASTE DISCHARGE REQUIREMENTS
FOR
PORT OF LONG BEACH
(FIVE-YEAR MAINTENANCE DREDGING)
(FILE NO. 92-11)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. The Port of Long Beach (POLB) filed an application for renewal of Waste Discharge Requirements contained in Regional Board Order No. R4-2009-0030, adopted on February 5, 2009, for maintenance dredging activities within Long Beach Harbor (Figure 1). Due to shoaling and sedimentation along wharves and channels in the harbor, dredging is necessary to restore water depths to their authorized depths in order to maintain safe and adequate water depths for ships within the Long Beach Harbor District.

2. Order No. R4-2009-0030 authorized the POLB to dredge approximately 200,000 cubic yards of material over a five-year period to respond to shoaling and sedimentation problems as necessary at various berths in the Inner Harbor, Middle Harbor, Southeast Basin and Outer Harbor. The volume of dredged material could not exceed 40,000 cubic yards per year. Since 2009, POLB dredged approximately 82,032 cubic yards of sediment from different locations within the port (Table 1).

TABLE 1. Maintenance Dredging Activity from 2009 to 2013.

Year	Location	Volume dredged
2009	Pier J, Berths J266-268	5,130 cubic yards
2010	Pier G, Berths G212-213	4,206 cubic yards
2012	Pier T, Berths 136-140	24,240 cubic yards
2012	Pier J, Berths 266-270 and Pier J Access Channel	18,653 cubic yards
2013	Pier J South Access Channel and North Slip	3,041 cubic yards
2013	Pier T West Basin Approach (Area 1 and 2)	26,762 cubic yards
	TOTAL	82,032 cubic yards

3. POLB has requested renewal of the waste discharge requirements with some changes from the previous order. POLB proposes to increase the amount of material that could be dredged annually via a clamshell, hydraulic or hopper dredge to a maximum of 150,000 cubic yards, with a maximum quantity of 750,000 cubic yards over a five-year period. This would provide greater operational flexibility to the POLB to conduct routine maintenance dredging in response to changing needs and circumstances. Recently, maintenance dredging has become more critical as larger vessels with deeper drafts call at the port. It is important to maintain berths and channels free of high spots to ensure safe navigation of large vessels. In addition, this volume increase would maximize opportunities for disposal of dredged material within available port fill sites (e.g., Phase 2 of the Middle Harbor Terminal Redevelopment Slip Fill is expected to be available in 2015 and will have a capacity of approximately 3.6 million cubic yards, and completion of the Pier G South slip fill may require approximately 2.3 million cubic yards within the next five years).

   POLB may need to conduct maintenance dredging at various locations throughout the port over the next several years (see Figure 2). Maintenance dredging is planned at the Pier J Turning Basin (see Figure 3) to remove approximately 65,900 cubic yards of sediments to deepen the berth to -48 feet mean lower low water (plus 2 feet of allowable over-dredging). All dredged material from the Pier J Turning Basin shall be beneficially re-used within the Middle Harbor Terminal Redevelopment Slip Fill.

   POLB also has proposed the use of a drag beam or similar equipment to level or "knock down" high spots in the vicinity of berthing areas. Within the port, there are often times where the prop wash from the large propellers of commercial vessels creates isolated high spots near the berths. These high spots usually consist of less than one to two feet of accumulated sediment, often very close to the edge of the wharf and spread over a wide area, rendering the use of mechanical or hydraulic dredging equipment infeasible and/or unnecessarily costly.

   POLB has identified six locations that potentially will require knockdown operations in the upcoming year, although it is possible that any of these sites may require maintenance dredging instead (see Table 2 and Figure 3). Other berthing locations within the port also may be suitable candidates for knockdown operations in the future.

TABLE 2. PROPOSED VOLUMES FOR SEVERAL POTENTIAL KNOCKDOWN OPERATION SITES.

Project Area	Design Depth	Estimated knockdown volume
Pier B, Berths 77-80	-40 feet (MLLW)	300 cubic yards
Pier G, Berths 214-215	-40 feet (MLLW)	100 cubic yards
Pier J, Berths 245-247	-50 feet (MLLW)	1,800 cubic yards
Pier T, Berths 118-119	-36 feet (MLLW)	100 cubic yards
Pier T, Berths 132-134	-51 feet (MLLW)	700 cubic yards
West Basin Access Channel	-51 feet (MLLW)	1,900 cubic yards
Total volume		4,900 cubic yards

"Knockdown" dredging is a common practice used in ports and harbors throughout the United States. It involves the leveling or spreading of shoaled or mounded material to maintain waterway depths, rather than direct removal of material from the waterway. This activity typically involves employing an I-beam or other similar equipment which is towed by a boat across a shoal or mound in order to redistribute the sediment into adjacent deeper areas within the project area. This equipment can be mobilized more quickly and much more inexpensively than normal dredging equipment. The option to utilize knockdown dredging or grading of underwater shoals to supplement routine maintenance dredging activities would provide POLB with a more efficient cost-effective means to deal with minor shoaling events while maintaining the safe navigation and berthing of vessels.

Small knockdowns can reduce the need for and frequency of maintenance dredging, and may have fewer environmental effects than traditional dredging (less turbidity is produced by knockdowns, since sediments remain localized near the bottom, rather than being raised through the water column and removed at the surface as is the case with dredging, which can generate large turbidity plumes). In addition, since the knockdown process simply redistributes shoaled or mounded material within the normal dredging footprint of a berth, the material would be removed in the future when full dredging is required.

POLB proposes to employ two possible knockdown dredging methods: 1) drag beam – an I-beam, rake, cutting edge, or similar fixed object would be dragged by a vessel (e.g., boat or barge) across a shoal or mound in order to redistribute the shoaled or mounded material from a high area to a low area within the approved project

boundary; 2) clamshell bucket or excavator – a clamshell bucket, excavator or similar equipment would be used to "sweep" the bottom to knock down high spots. This method would be used to remove high spots near piles or other wharf structures where the use of a drag beam is not feasible. A clamshell bucket, excavator or similar equipment also may be used to collect and move shoaled material near the bottom (without lifting out of the water column) for placement in a lower nearby area within the approved project boundary.

POLB has proposed several criteria and guidelines that must be met to utilize drag beam or knock-down dredging: 1) limited to a maximum of 15,000 cubic yards of material per year; 2) total volume for each event limited to a maximum of 2,000 cubic yards; 3) cannot be performed in the same area more than once per year; 4) limited to the approved project boundary for the designated berth or channel as determined by the Los Angeles Region Contaminated Sediments Task Force and subject to written approval from the Executive Officer of the Los Angeles Regional Board; 5) sediment sampling (i.e., elutriate testing) will be performed prior to each project. No receiving water monitoring will be required during knockdown dredging, since the limited magnitude and short duration of the activity is not expected to produce adverse water quality impacts.

4. POLB will conduct a sediment characterization study (physical and chemical analyses of sediments) prior to evaluating the suitability of the material for beneficial re-use and selecting a suitable disposal alternative for a given maintenance dredging project. For the Pier J Turning Basin, POLB has developed a sampling and analysis plan that includes collection and analysis of samples from 5 stations within the turning basin (see Figure 4). Sampling and analysis plans will be developed for other maintenance dredging projects in the future and submitted to the Dredged Material Management Team for approval (DMMT includes the Los Angeles Regional Water Quality Control Board, California Coastal Commission, United States Environmental Protection Agency and United States Army Corps of Engineers.

   POLB will conduct a sediment characterization study (physical and chemical analyses of sediments) prior to conducting a knockdown operation in a given berthing area. For knockdown operations, POLB proposes to collect and analyze one sample per 500 linear feet of knockdown area along a wharf face and per every 250 feet offshore. POLB has developed a sampling and analysis plan for five berthing areas currently requiring knockdown operations: 1) collect and analyze three surface grab samples at Pier B Berths 77-80 (see Figure 5); 2) collect and analyze two surface grab samples at Pier G Berths 214-215 (see Figure 6); 3) collect and analyze five surface grab samples at Pier T Berths 245-247 (see Figure 7); 4) collect and analyze two surface grab samples at Pier T Berths 118-119 (see Figure 8); and 5) collect and analyze seven surface grab samples at Pier T Berths 132-134 (see Figure 9). Sampling for

the West Basin Access Channel was performed previously in 2012. One core sample was collected and analyzed (see Figure 10).

POLB proposes to dispose of sediments in one of the following ways (see Figure 11): 1) disposal within a constructed fill within the POLB (land disposal site for clean or contaminated sediments); 2) disposal at an upland site within the POLB (land disposal site for clean or contaminated sediments); 3) disposal at the Western Anchorage Dredged Material Beneficial Reuse and Disposal Site (temporary aquatic disposal site for clean sediments for later reuse as fill within the port).

POLB has identified two constructed fill alternatives and one upland alternative which could be used for disposal of dredged material:

- Middle Harbor Redevelopment Slip and Basin Fill – The Middle Harbor Redevelopment Project involves the fill of the Pier E Slip No. 1 and a portion of the East Basin. A rock containment dike was constructed at the southern boundary of Slip No. 1 and a second containment dike will be constructed from Pier E, Berth E24 to Pier F, Berth F10. The containment dikes are designed to effectively contain chemically contaminated materials and to control runoff of decant water from the settling of dredged material at the site. Any contaminated sediments placed at this site will be capped and sequestered by the placement of uncontaminated materials on top and a sand filter layer behind the containment dike in accordance with regulatory requirements and permits. Accordingly, disposal of dredged material at this disposal site is not expected to pose any significant environmental concerns.

- Pier G South Slip Fill – The fill site is located at the southern portion of the Pier G Slip. A rock containment dike will be designed and constructed to effectively contain chemically contaminated materials and to control runoff of decant water from the settling of dredged material at the site. Any contaminated sediments placed at this site will be capped and sequestered by the placement of uncontaminated materials on top and a sand filter behind the containment dike in accordance with regulatory requirements and permits. Accordingly, disposal of dredged material at this site is not expected to pose any significant environmental concerns.

- Port Upland Processing Area – Dredged material also may be placed upland on POLB property temporarily for sorting and drying of the material prior to disposal at an approved upland disposal facility. Port upland processing areas may include Pier S or various other upland sites throughout the port. All processing sites will be designed with proper best management practices designed to contain dredged materials on site. Dredged material would be

placed within a retention berm for sorting and drying and a discharge weir would help to regulate the flow of decant water from the confined area. Once the material has been dried and sorted, scrap steel will be recycled and rock will be crushed into miscellaneous road base. Non-recyclable debris and sediment will be disposed of at upland disposal facilities appropriate for the type of material generated in accordance with federal and state regulations. Disposal at such an upland disposal facility shall be subject to written approval from the Executive Officer of the Los Angeles Regional Board.

5. POLB has applied to the U.S. Army Corps of Engineers (COE) for a new five-year maintenance dredging permit with the same conditions contained within the previous permit. The COE is expected to issue a final permit following the adoption of Waste Discharge Requirements by the Los Angeles Regional Water Quality Control Board.

6. POLB filed a Notice of Exemption (Categorical Exemption, class 4, 14 CCR section 15304, Minor Alterations to Land) for maintenance dredging operations within Long Beach Harbor on June 21, 2013, pursuant to Public Resources Code section 21000 et seq.

7. The Regional Board adopted a revised Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties on June 13, 1994. The Water Quality Control Plan contains water quality objectives for Long Beach Harbor. The requirements contained in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.

8. The beneficial uses of the Los Angeles-Long Beach inner harbor and marina waters are: industrial service supply, navigation, water contact recreation (potential), non-contact water recreation, commercial and sport fishing, marine habitat, preservation of rare, threatened and endangered species, and shellfish harvesting (potential). The beneficial uses of the outer harbor waters are: navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, preservation of rare, threatened and endangered species, and shellfish harvesting (potential).

9. With proper management of the dredging and disposal operations, the project is not expected to release significant levels of contaminants to the Harbor waters or other State waters nor adversely impact beneficial uses.

10. Dredging and disposal operations will be accomplished through the use of temporary equipment. The Waste Discharge Requirements imposed below will not result in any significant increase in energy consumption.

The Regional Board has notified the Port of Long Beach and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that the Port of Long Beach, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Requirements

1. The removal and placement of dredged/excavated material shall be managed such that the concentrations of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial uses, in particular those identified in Finding number 8 above.

2. Enclosed bay and estuarine communities and populations, including vertebrate, invertebrate and plant species, shall not be degraded as a result of the discharge of waste.

3. The natural taste and odor of fish, shellfish or other enclosed bay and estuarine resources used for human consumption shall not be impaired as a result of the discharge of waste.

4. Toxic pollutants shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.

5. There shall be no acute toxicity or chronic toxicity in ambient waters as a result of the discharge of waste.

6. POLB shall conduct the monitoring required and comply with the reporting requirements outlined in the attached Monitoring and Reporting Program, which is incorporated by reference as part of these Waste Discharge Requirements.

7. Dredging, excavation or disposal of dredge spoils shall not cause any of the following conditions in the receiving waters:

a. The formation of sludge banks or deposits of waste origin that would adversely affect the composition of the bottom fauna and flora, interfere with the fish propagation or deleteriously affect their habitat, or adversely change the physical or chemical nature of the bottom.

b. Turbidity that would cause substantial visible contrast with the natural appearance of the water outside the immediate area of operation.

c. Discoloration outside the immediate area of operation.

d. Visible material, including oil and grease, either floating on or suspended in the water or deposited on beaches, shores, or channel structures outside the immediate area of operation.

e. Objectionable odors emanating from the water surface.

f. Depression of dissolved oxygen concentrations below 5.0 mg/l at any time outside the immediate area of operation.

g. Any condition of pollution or nuisance.

B. Provisions

1. The Discharge Requirements specified above are valid only for dredging of a maximum volume of 150,000 cubic yards of sediment per year and a maximum volume of 750,000 cubic yards of sediment over a five-year period, and disposal of dredged material at the Pier G South Slip Fill, the Middle Harbor Redevelopment Slip and Basin Fill, the Pier S Upland Processing Area, or the Western Anchorage Dredged Material Beneficial Re-Use and Disposal Site.

2. POLB shall manage the Pier G Slip landfill site, Middle Harbor Redevelopment Slip and Basin Fill site, and Pier S Upland Processing Area, as well as any additional disposal sites approved by the Executive Officer, to effectively contain chemically contaminated materials and to prevent migration of contaminants from the disposal sites into State waters.

3. Prior to disposal of dredged material at a constructed fill site or upland site, other than the Pier G South Slip Fill, the Middle Harbor Redevelopment Slip and Basin Fill or the Pier S Upland Processing Area, POLB shall request and obtain written approval from the Executive Officer. A request for land disposal at a new site, including appropriate supporting documentation,

shall be submitted at least 60 days prior to the anticipated commencement of any dredging or disposal operations.

4. Prior to disposal of dredged material at the POLB's Western Anchorage Dredged Material Beneficial Re-Use and Disposal Site, the Port shall request and obtain written approval from the Executive Officer. A request for aquatic disposal at this site, including appropriate supporting documentation, shall be submitted at least 60 days prior to the anticipated commencement of any dredging or disposal operations. The supporting documentation shall include physical, chemical, toxicity and bioaccumulation test results.

5. Sampling and analysis plans shall include a discussion on how the dredging operations relate and could be coordinated, if at all, with TMDL requirements. This will ensure that water quality programs are best coordinated and efforts are leveraged.

6. POLB shall notify the Regional Board immediately by telephone of any adverse conditions in receiving waters or adjacent areas resulting from the removal of dredge materials; written confirmation by POLB to the Regional Board shall follow within one week.

7. A copy of this Order shall be made available at all times to project construction personnel.

8. POLB shall provide the following information to the Regional Board:

   a. A copy of the final permit issued by the Department of the Army for the dredge and disposal operations.

   b. The scheduled date of commencement of each dredging operation and an engineering plan and profile of the excavation and the disposal site at least two weeks prior to commencement.

   c. Notice of termination of the operation, within one week following the termination date.

9. POLB shall submit, under penalty of perjury, technical reports to the Regional Board in accordance with specifications prepared by the Executive Officer.

10. In accordance with section 13260(c) of the Water Code, POLB shall file a report of any material change or proposed change in the character, location, or volume of the waste.

11. These requirements do not exempt POLB from compliance with any other laws, regulations, or ordinances which may be applicable: they do not legalize this waste discharge, and they leave unaffected any further restraint on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

12. In accordance with Water Code section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into waters of the State are privileges, not rights.

13. This Order includes Attachment N: "Standard Provisions, General Monitoring and Reporting Requirements" ("Standard Provisions") and the attached Monitoring and Reporting Requirements, both of which are incorporated herein by reference. If there is any conflict between provisions stated hereinbefore and said "Standard Provisions", those provisions stated hereinbefore prevail. If there is any conflict between requirements stated in the attached Monitoring and Reporting Program and said "Standard Provisions", the former shall prevail.

14. This Order fulfills the requirements for a Clean Water Act Section 401 Water Quality Certification for the proposed project. Pursuant to section 3860 of title 23 of the California Code of Regulations (23 CCR), the following three standard conditions shall apply to this project:

    a. this certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and Article 6 (commencing with 23 CCR section 3867);

    b. this certification action is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought;

c. this certification is conditioned upon total payment of any fee required pursuant to 23 CCR division 3, chapter 28, and owed by the applicant.

15. This Order shall expire on December 31, 2018.

16. This Order terminates the requirements and provisions of Regional Board Order No. R4-2009-0030, except for enforcement purposes.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on October 3, 2013.

Samuel Unger

SAMUEL UNGER, P.E.
Executive Officer

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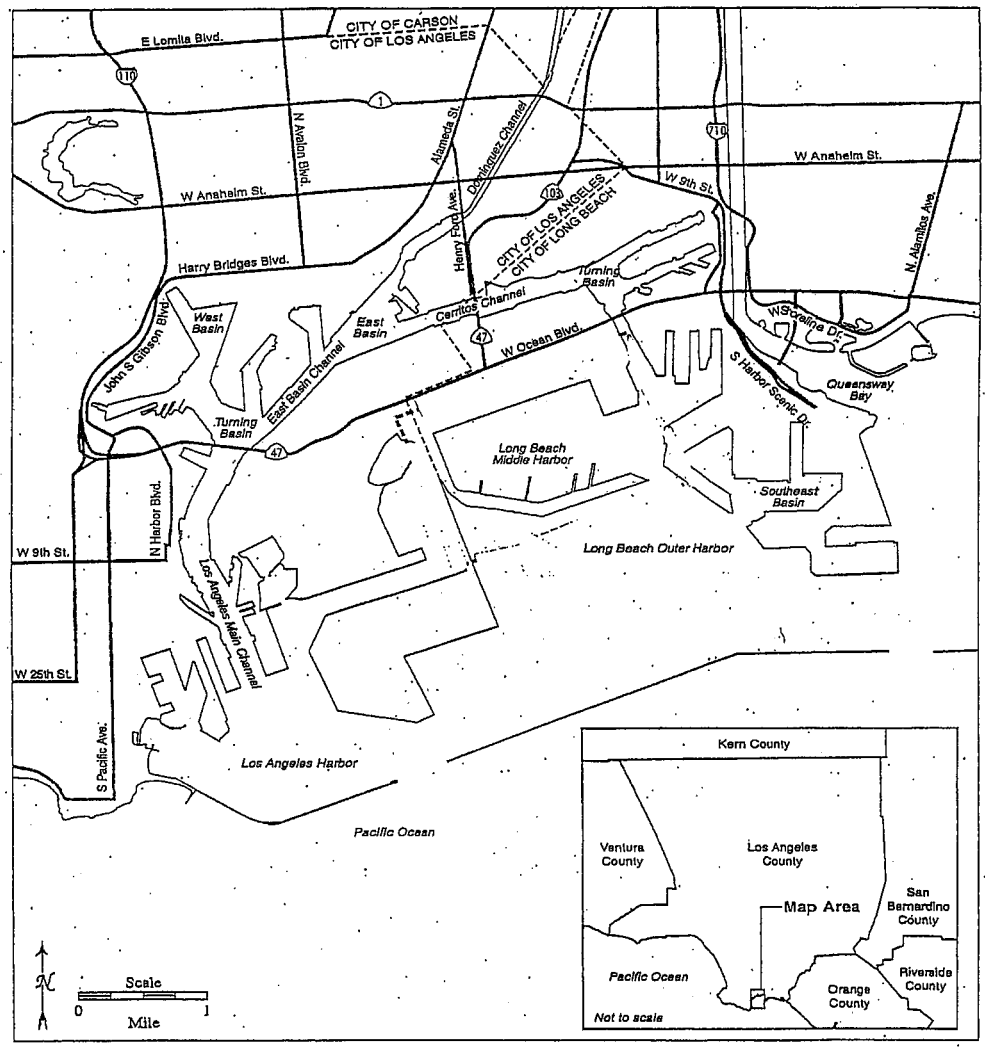
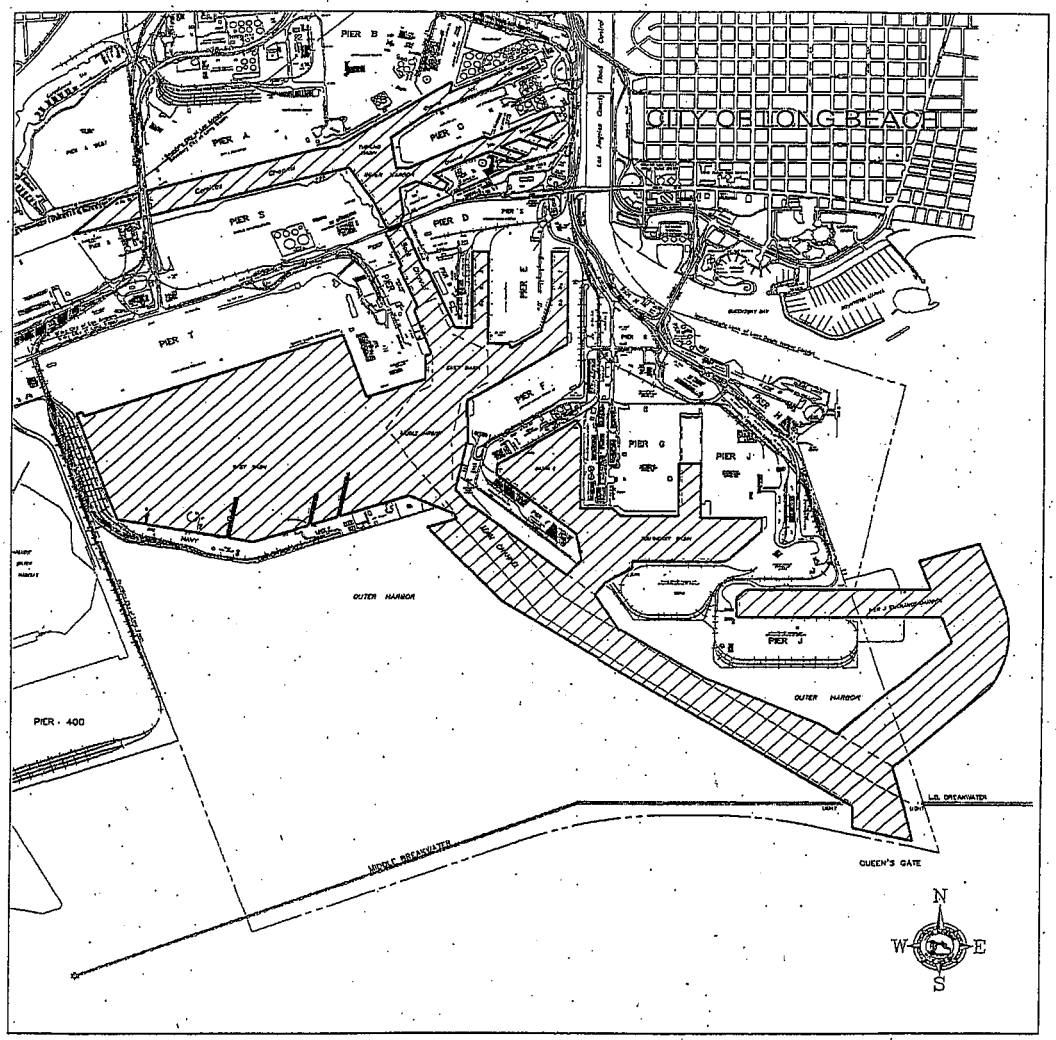


Figure 1. Project Vicinity Map

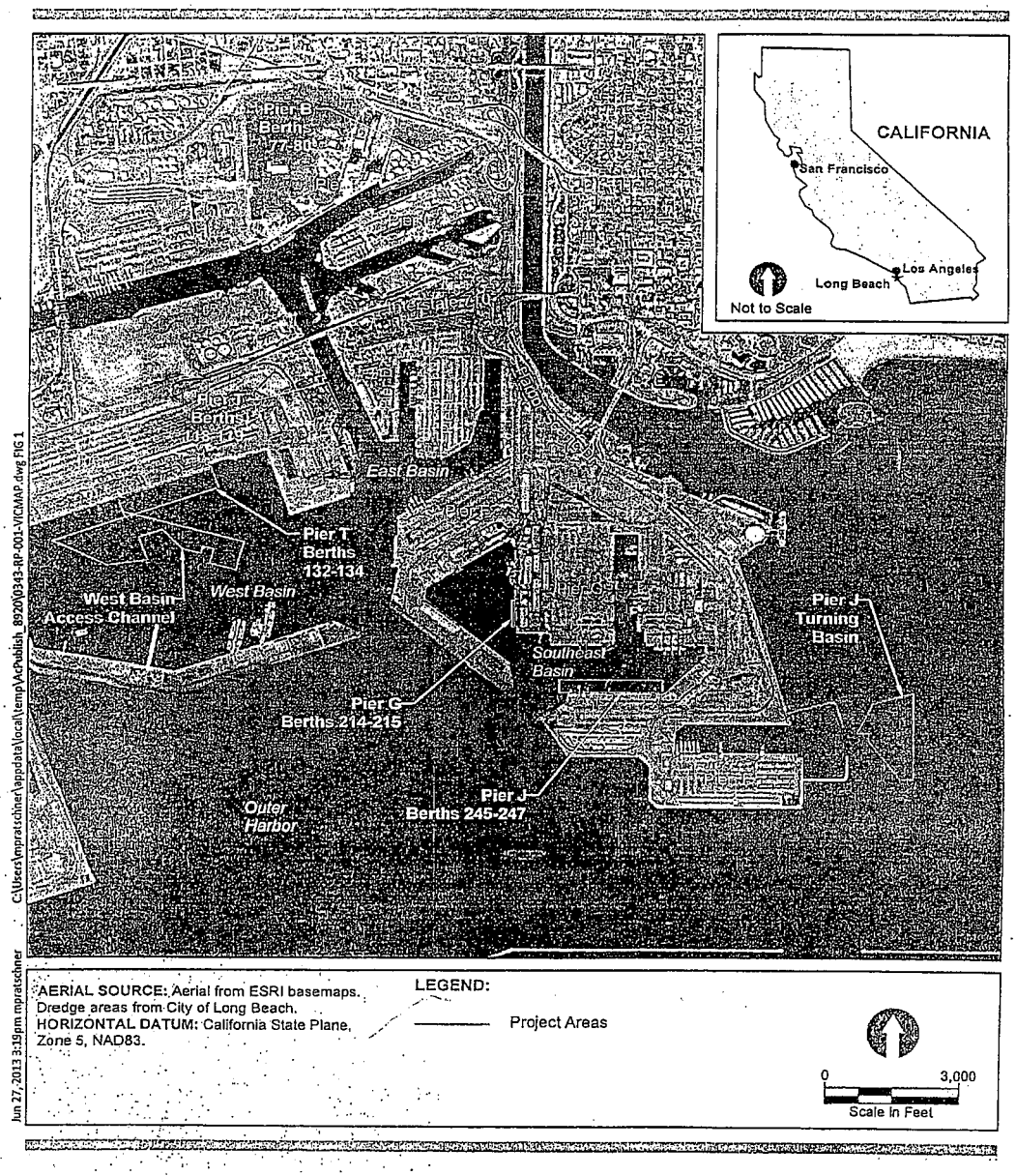
Figure 1. Location Map for Port of Long Beach.

MAINTENANCE DREDGE AREA



MAP # 179

Figure 2. Potential Maintenance Dredging Areas Within the Port of Long Beach.



ANCHOR QEA

Figure 1
Vicinity Map
Port of Long Beach Phase 1 Maintenance Dredging

Figure 3. Location of Pier J Turning Basin Maintenance Dredging Project and Several Potential Knockdown Operation Sites.

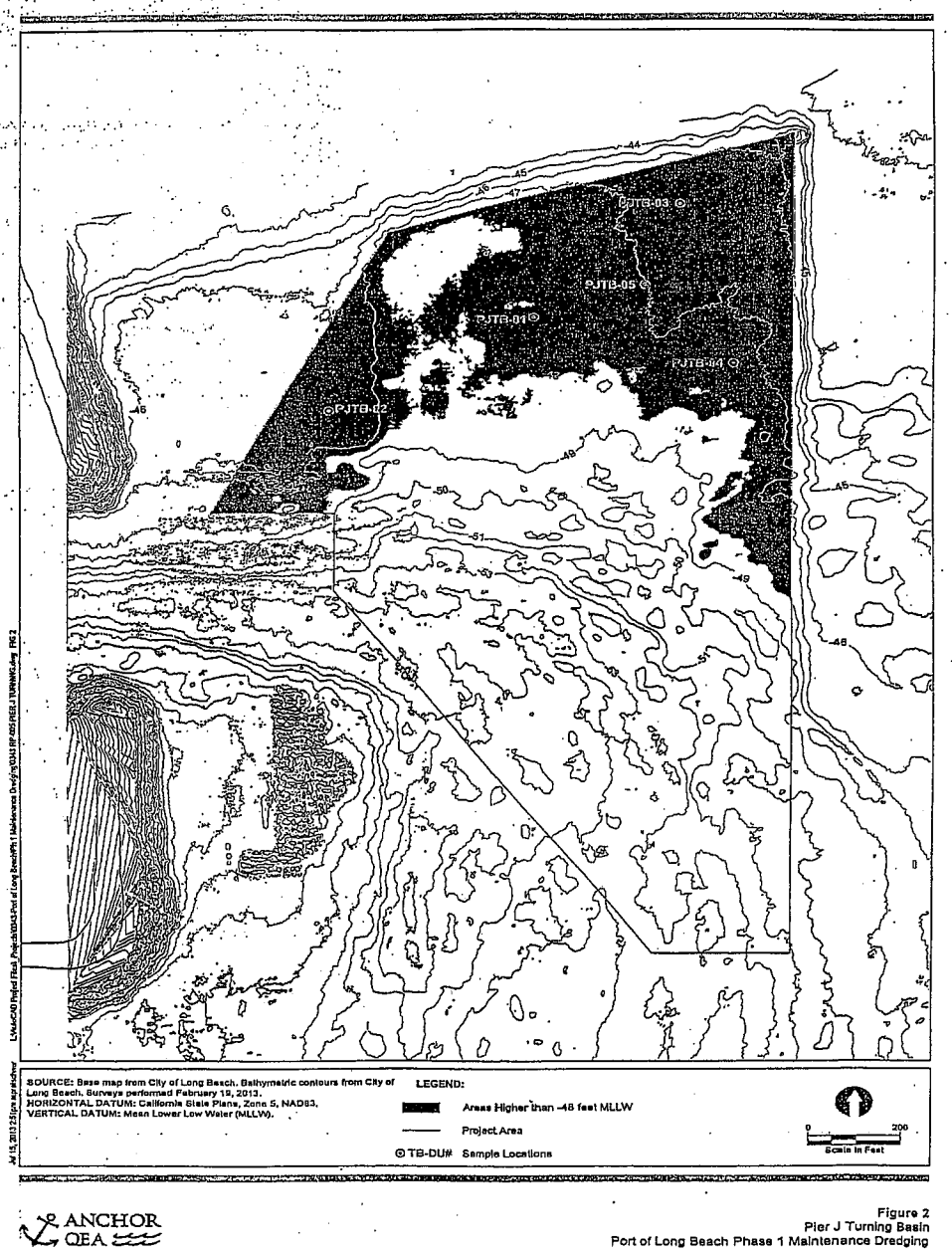


Figure 4. Area to be Dredged at Pier J Turning Basin and Location of Five Sediment Sampling Stations (PJTB-01 through PJTB-05).

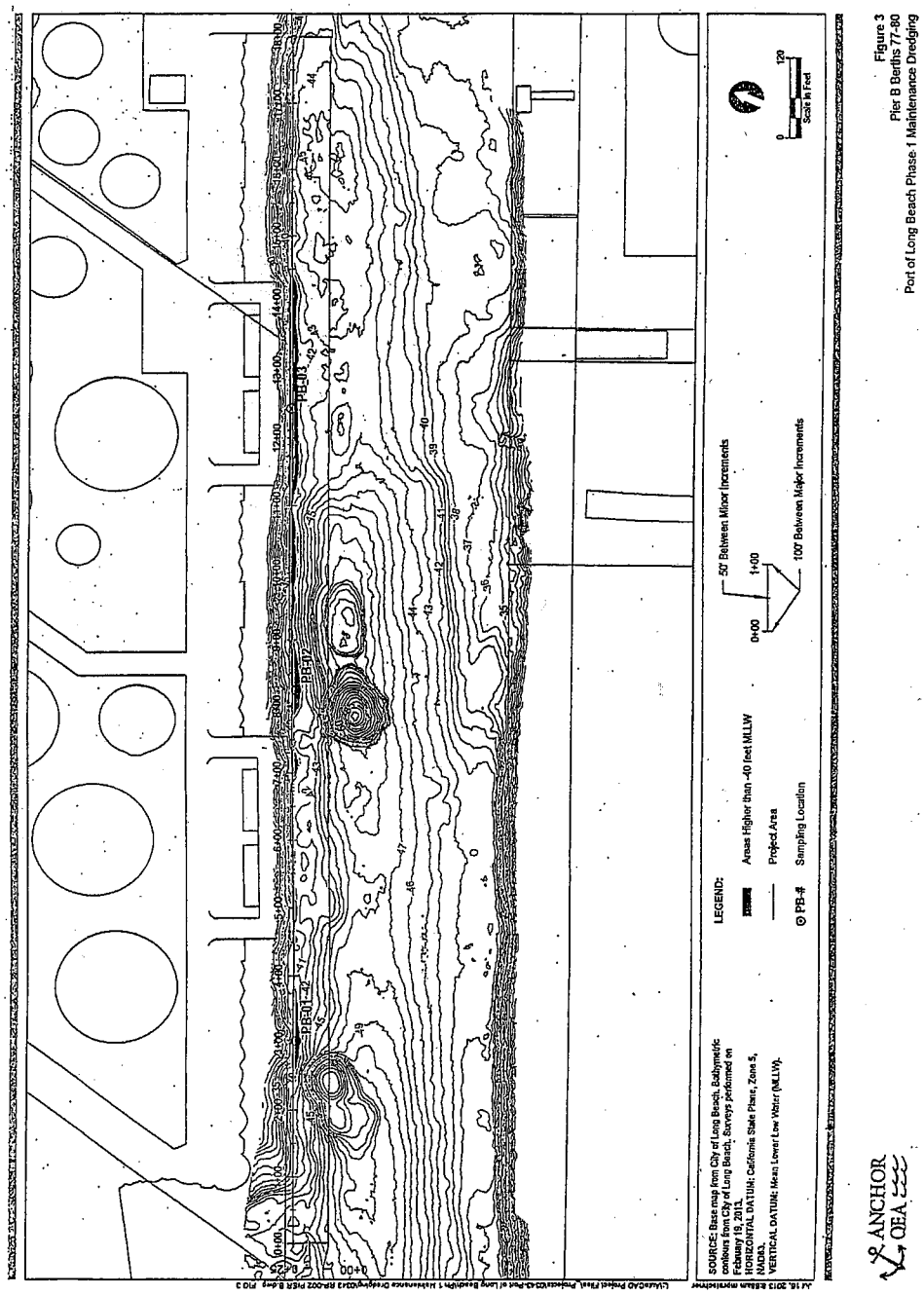


Figure 5. Area for Knockdown at Pier B Berths 77-80 and Location of Three Sediment Sampling Stations (PB-01 through PB-03).

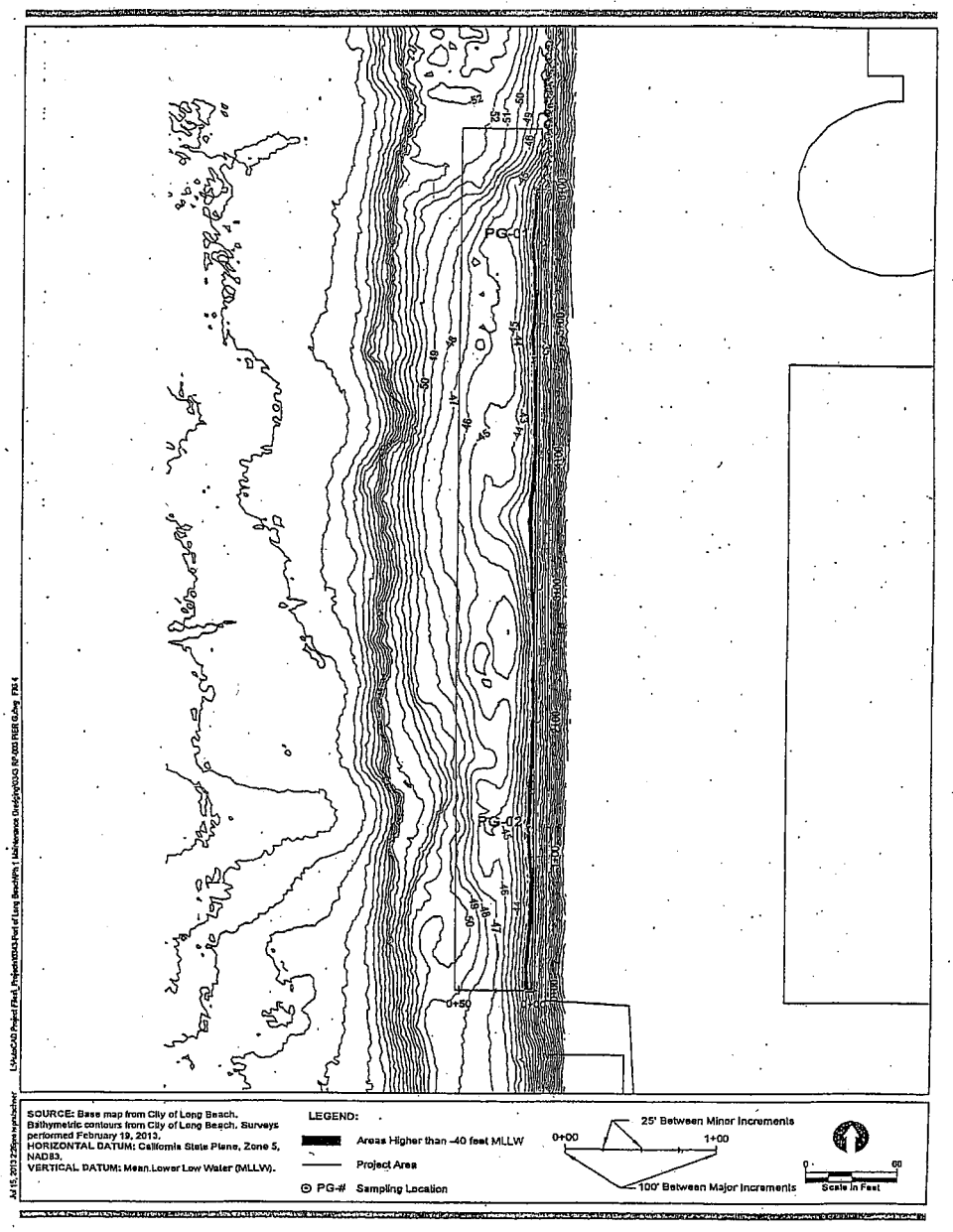


Figure 6. Area for Knockdown at Pier G Berths 214-215 and Location of Two Sediment Sampling Stations (PG-01 through PG-02).

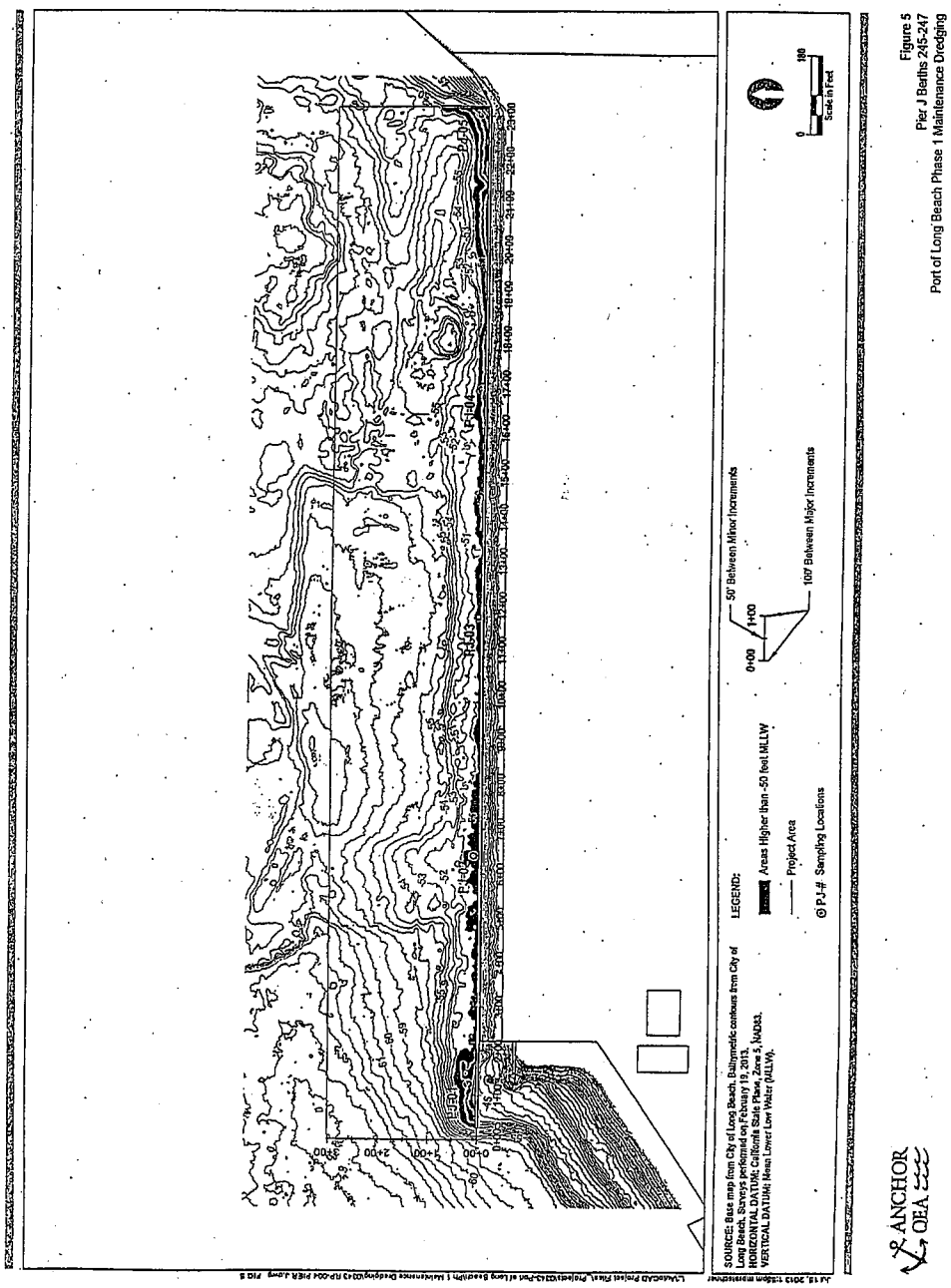


Figure 7. Area for Knockdown at Pier J Berths 245-247 and Location of Five Sediment Sampling Stations (PJ-01 through PJ-05).

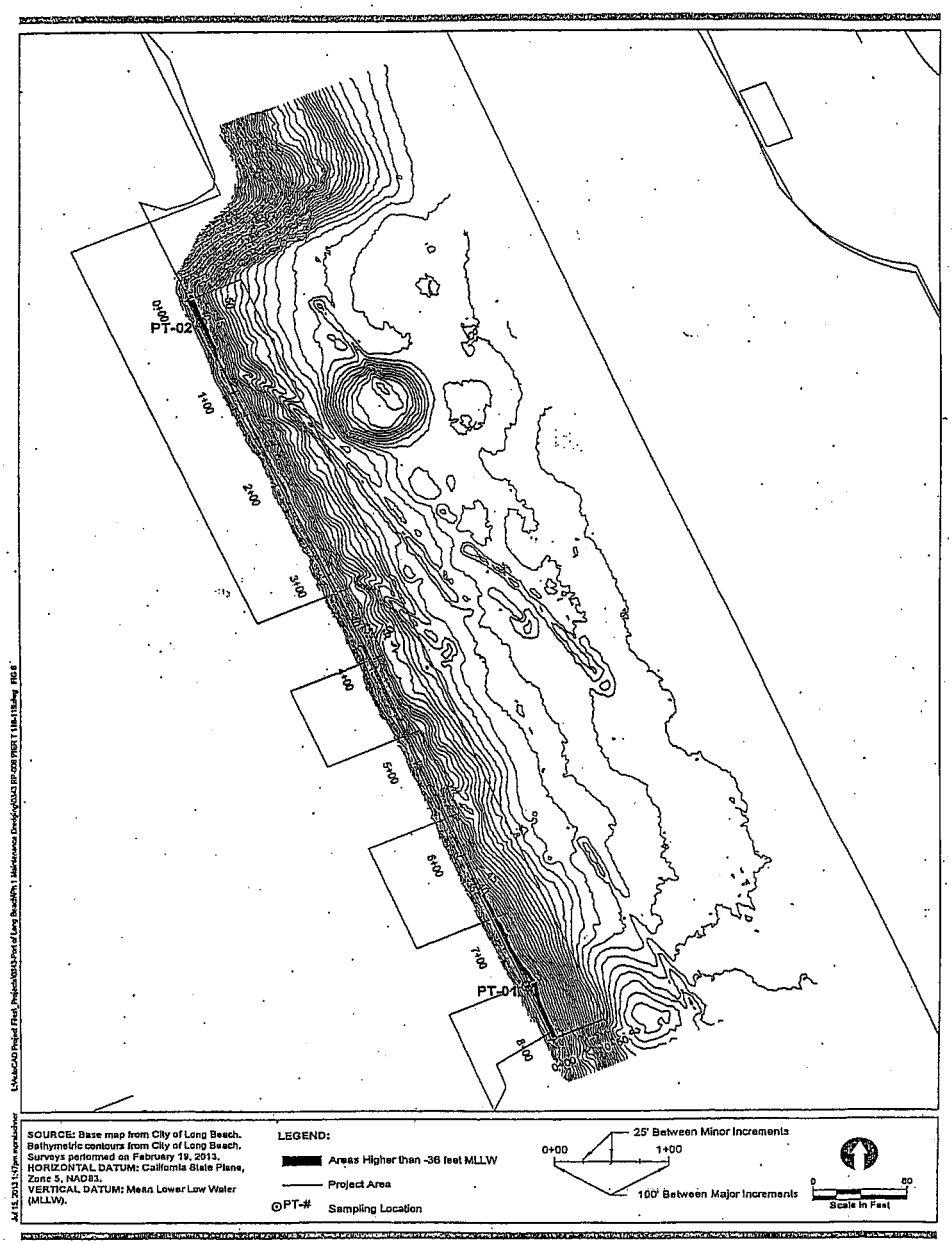


Figure 8. Area for Knockdown at Pier T Berths 118-119 and Location of Two Sediment Sampling Stations (PT-01 through PT-02).

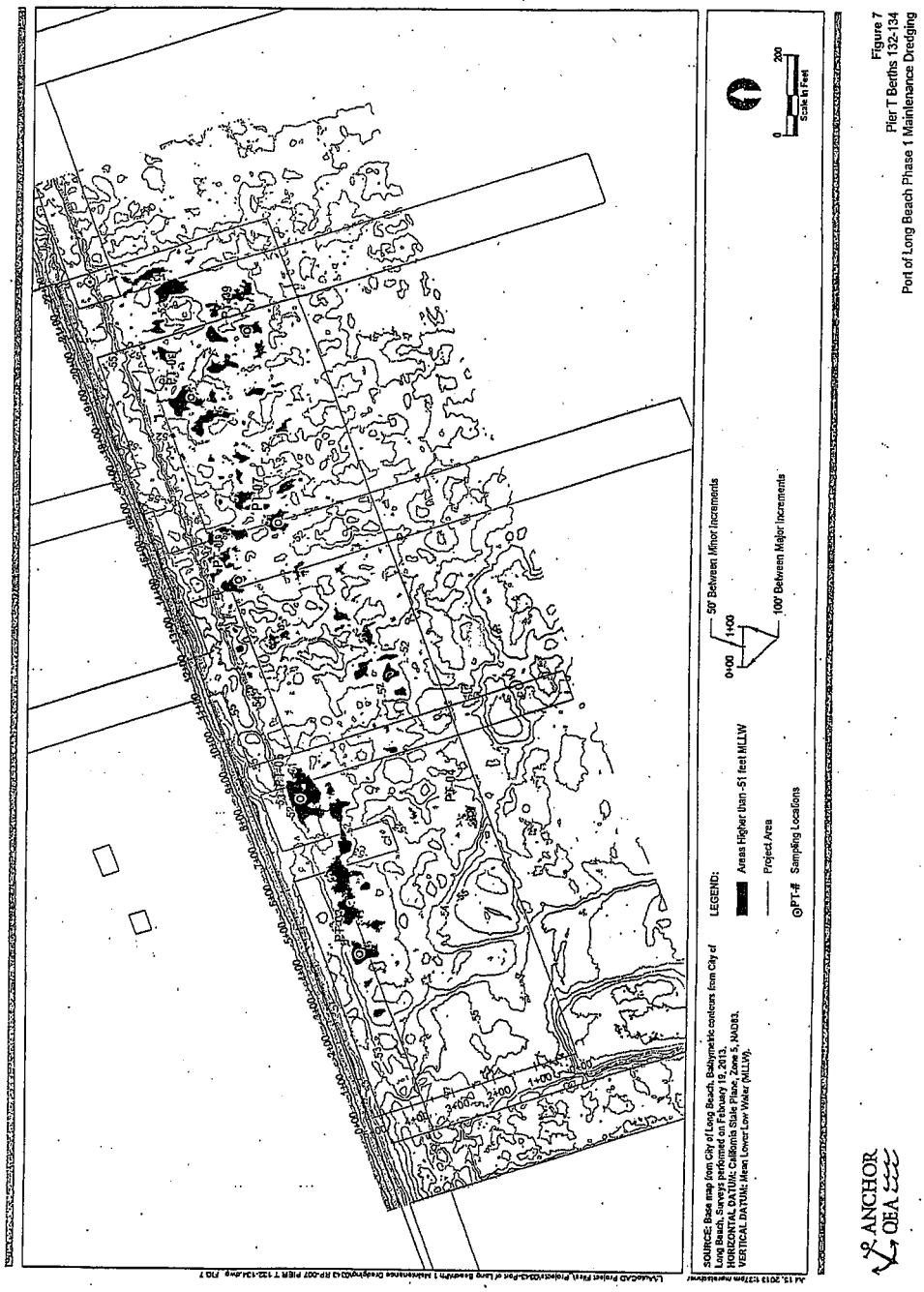


Figure 9. Area for Knockdown at Pier T Berths 132-134 and Location of Eight Sediment Sampling Stations (PT-01 through PT-08).

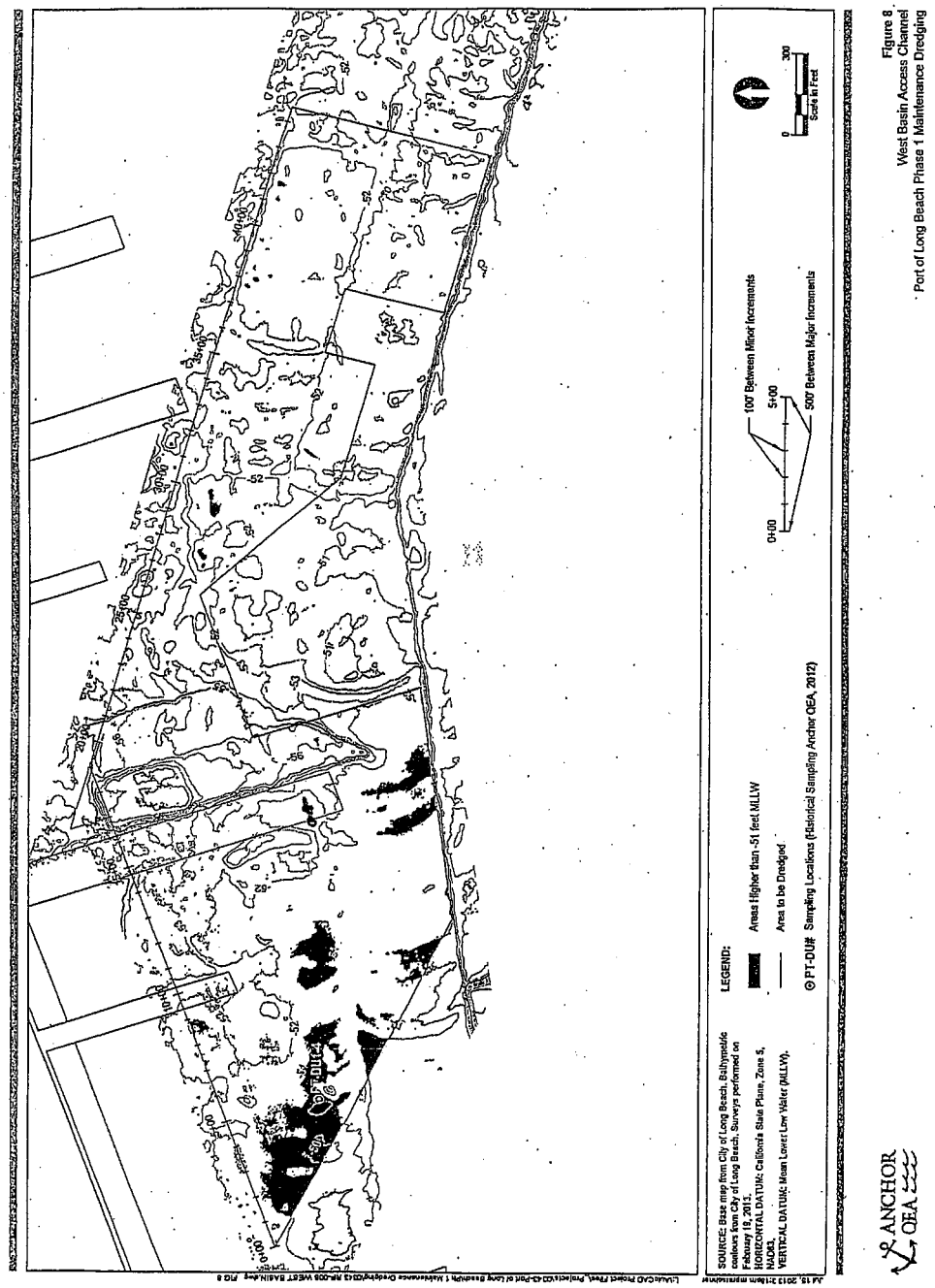


Figure 8.
West Basin Access Channel
Port of Long Beach Phase 1 Maintenance Dredging

Figure 10. Area for Knockdown at West Basin Access Channel.

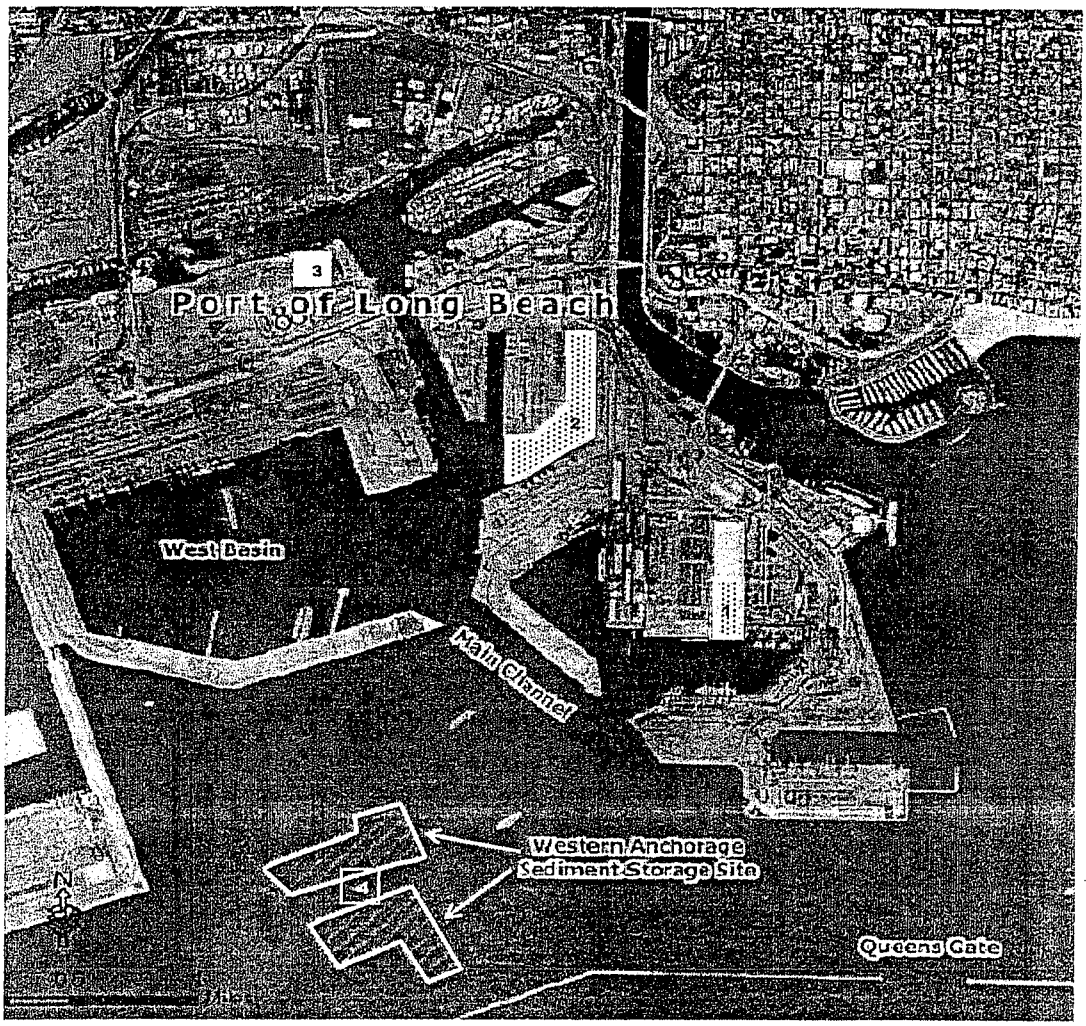


Figure 2

Proposed Disposal Sites

1. Pier G South Slip Fill
2. Middle Harbor Slip and Basin Fill
3. Upland Processing Area
4. Western Anchorage Sediment Storage Site

Figure 11. Proposed Disposal Sites.

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 7158
FOR
PORT OF LONG BEACH
(FIVE-YEAR MAINTENANCE DREDGING)
(FILE NO. 92-11)

1. Receiving Water Monitoring

The following sampling protocol shall be undertaken by the Port of Long Beach (POLB) during the proposed dredging project. Sampling for the receiving water monitoring shall commence at least one week prior to the start of the dredging and fill operations and continue at least one week following the completion of all such operations. Sampling shall be conducted a minimum of once a week during dredging operations. Sampling shall be conducted down current of the dredge sites at least one hour after the start of dredging operations. All receiving water monitoring data shall be obtained via grab samples or remote electronic detection equipment.

Due to the configuration of certain confined areas in the port (e.g., slips and dead-end channels, corners of piers/wharfs within basins) and the fine-grained nature of dredged material in these locations, the POLB expects and has experienced prolonged suspension of dredge-mobilized particulates within confined areas. Light transmittance exceedances have been observed in the past under such conditions (only in the bottom-depth samples), but have been attributed to the configuration of the area and lack of tidal circulation, rather than due to dredging operation practices. Consequently, under these conditions, monitoring stations may be located at the desired approximate distance from the designated project area boundary (e.g., from the entrance of a slip or dead-end channel), rather than from the actual dredging activity.

Receiving water samples shall be taken at the following stations:

Station	Description
A	30.5 meters (100 feet) up current of the dredging operations, safety permitting or the designated project area boundary.
B	30.5 meters (100 feet) down current of the dredging operations, safety permitting or the designated project area boundary.
C	91.5 meters (300 feet) down current of the dredging operations or the designated project area boundary.
D	Control site (area not affected by dredging operations).

The following shall constitute the receiving water monitoring program:

Water Column Monitoring Parameters	Units	Station	Frequency
Dissolved oxygen[1]	mg/l	A-D	Weekly[2]
Light transmittance[1]	% Transmittance	" "	"
pH[1]	pH units	" "	"
Suspended solids[3]	mg/l	" "	"

[1]Measurements shall be taken throughout the water column (at a minimum, at 2-meter increments).
[2]During the first two weeks of dredging, stations shall be sampled two times per week.
[3]Mid-depth shall be sampled.

Water column light transmittance values from Stations C and D shall be compared for the near surface (1 meter below the surface), for mid-water (averaged values throughout the water column, excluding the near surface and bottom) and for the bottom (1 meter above the bottom). If the difference in % light transmittance between stations C and D for the near surface or mid-water or bottom is 30% or greater, water samples shall be collected at mid-depth (or the depth at which the maximum turbidity occurs) and analyzed for trace metals, DDTs, PCBs and PAHs. At a minimum, one set of water samples shall be collected and analyzed for these chemical constituents during the maintenance dredging operation.

In the event that the water column light transmittance values from Stations C and D exceed the 30% trigger described above, POLB shall conduct the standard water quality monitoring described above for three consecutive days following the date of exceedance. POLB shall notify the Regional Board, the California Coastal Commission, the United States Environmental Protection Agency and the United States Army Corps of Engineers within 24 hours following observance of the transmissivity exceedance. POLB shall investigate whether the exceedance is due to obvious dredging operational problems and can be corrected easily and quickly. However, if the turbidity problem persists or recurs, the POLB shall look for other causes of the problem and evaluate whether additional, more aggressive best management practices are required to eliminate the exceedances; this evaluation shall be performed in consultation with the four regulatory agencies listed above.

Color photographs shall be taken at the time of sampling to record the presence and extent of visible effects of dredging operations. These photographs shall be submitted with the receiving water monitoring reports.

POLB shall provide Regional Board staff with a receiving water monitoring program field schedule at least one week prior to initiating the program. Regional Board staff shall be notified of any changes in the field schedule at least 48 hours in advance.

2. Observations

The following receiving water observations shall be made and logged daily during dredging or excavating operations:

a. Date and time;
b. Direction and estimated speed of currents;
c. General weather conditions and wind velocity;
d. Tide stage;
e. Appearance of trash, floatable material, grease, oil or oily slick, or other objectionable materials;
f. Discoloration and/or turbidity;
g. Odors;
h. Depth of dredge operations during previous day;
i. Amount of material dredged the previous day;
j. Cumulative total amount of material dredged to date.

3. General Provisions

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" promulgated by the United States Environmental Protection Agency.

All chemical analyses shall be conducted at a laboratory certified for such analysis by the State Department of Health Services, Environmental Laboratory Accreditation Program (ELAP), or approved by the Executive Officer.

POLB shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted by third parties under Port supervision.

A grab sample is defined as an individual sample collected in fewer than 15 minutes.

All samples shall be representative of the waste discharge under normal operating conditions.

4. Reporting

Monitoring reports shall be submitted within 10 days following each weekly sampling period. In reporting, POLB shall arrange the monitoring data in tabular form so that dates, time, parameters, test data, and observations are readily discernible. The data shall be summarized to demonstrate compliance with the waste discharge requirements. A final report, summarizing the results of the weekly monitoring and reporting the total volume discharged, shall be submitted within one month of completion of the project.

Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

Each monitoring report must affirm in writing that:

> All analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current EPA guidelines or as specified in the Monitoring Program.

For any analysis preformed for which no procedure is specified in the EPA guidelines or in the Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

5. General Provisions for Reporting

For every item where the requirements are not met, POLB shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Executed on the_____day of_____, 20___,
at _____.

_____(Signature)

_____(Title)"

These records and reports are public documents and shall be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:

Samuel Unger

SAMUEL UNGER, P.E.
Executive Officer

Date: October 3, 2013