October 5, 2016

Ms. Elvira Hallinan
Dredging Manager
Ventura Port District
Ventura, CA 93001-4229

TENTATIVE WASTE DISCHARGE REQUIREMENTS
ALAMITOS BAY MARINA REHABILITATION (FILE NO. 10-010)

Dear Ms. Hallinan:

We have completed our review of your application to this Board for revision of waste discharge requirements for your proposed discharge of wastes. Enclosed are copies of tentative waste discharge requirements and a receiving water monitoring program for dredging and disposal of dredged material from the Alamitos Bay Marina Rehabilitation Project in Long Beach, Los Angeles County. A copy of our Standard Provisions, General Monitoring and Reporting Requirements (Attachment N) also is enclosed.

In accordance with the California Water Code, this Board, at a public meeting to be held on December 8, 2016, at 9:00 a.m., Metropolitan Water District Board Room, 700 N. Alameda St., Los Angeles, California, will consider the enclosed tentative requirements and comments submitted in writing regarding any or all portions thereof. The Board will hear any testimony pertinent to these discharges and the tentative requirements. It is expected that the Board will take action at the hearing; however, as testimony indicates, the Board at its discretion may order further investigation.

Written comments and any exhibits must be submitted to the Executive Officer not later than **November 7, 2016**. Failure to comply with this requirement is grounds for the Regional Board to refuse to admit the proposed written comment or exhibit into evidence (Title 23 CCR Section 648.2). If materials are not submitted in a timely manner, the Regional Board may refuse to admit written testimony into evidence unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from admission of written testimony or exhibits not timely submitted, the Regional Board may refuse to admit it.

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

Sincerely,

J. Michael Lyons
Senior Environmental Scientist

Enclosures

cc: Bill Orme, Non-point Source Unit, SWRCB
Jennifer Fordyce, Office of Chief Counsel, SWRCB
Larry Simon, California Coastal Commission (San Francisco)
Bill Paznokas, California Department of Fish and Game (San Diego)
Theresa Stevens, U.S. Army Corps of Engineers (Ventura)
Allan Ota, U.S. Environmental Protection Agency (San Francisco)
Melissa Scianni, U.S. Environmental Protection Agency (San Francisco)
Carol Roberts, U.S. Fish and Wildlife Service (Carlsbad)
Bryant Chesney, National Marine Fisheries Service (Long Beach)
Rita Kampalath, Heal the Bay
Janna Watanabe, Port of Long Beach
Matthew Arms, Port of Long Beach
Joshua Burnam, Anchor QEA

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

ORDER NO. R4-2015-0263-A01

AMENDMENT TO
WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LONG BEACH
(ALAMITOS BAY MARINA REHABILITATION)
(FILE NO. 10-110)

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

1. The Regional Board adopted Order No. R4-2010-0201 on November 4, 2010, to allow the City of Long Beach to proceed with rehabilitation of the Alamitos Bay Marina (location shown in Figure 1), including repairing and replacing aged infrastructure, and performing maintenance dredging to remove shoaled materials that posed a hazard to navigation. The Regional Board adopted Order No. R4-2015-0263 on December 10, 2015, to renew the waste discharge requirements to allow completion of dock replacement work in Basins 2 and 3 and dredging in Basin 3.

2. From 2011 to 2016, the City of Long Beach dredged approximately 203,667 cubic yards of sediment from Basins 1 through 5 as part of the Alamitos Bay Marina Restoration Project (178,332 cubic yards under Order R4-2010-201 and 25,335 cubic yards under Order R4-2015-0263). Material classified as unsuitable for ocean disposal was placed at the Port of Long Beach's Middle Harbor fill site (41,900 cubic yards). Material classified as suitable for ocean disposal was disposed of at the LA-2 ocean disposal site (161,767 cubic yards).

3. The City of Long Beach proposes to amend Order R4-2015-0263 to allow for completion of the dredging of Basins 3, 6 and 7 (location of basins shown in Figure 2). Approximately 30,565 cubic yards of material remain to be dredged from Basin 3 (Figure 3). Dredging of this material from Basin 3 and disposal at the LA-2 ocean disposal site was authorized by the 2010 and 2015 Board orders. In addition, approximately 16,350 and 1,700 cubic yards of material from Basins 6 and 7 (Figures 4 and 5), respectively, would be dredged.

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September 30, 2016

4. A sediment characterization study was conducted in March 2016 to assess sediment quality within Basins 6 and 7 of the Alamitos Bay Marina. Five vibracore samples were collected from dredging area B6 and composited for analysis and three vibracore samples were collected from dredging area B7 and composited for analysis (Figures 4 and 5). Physical and chemical results are shown in Table 1.

5. The Basin 6 material to be dredged is composed of primarily fine-grained silt-clay (68.11%). The Basin 7 material is composed of sandier material (84.57%). The sediment composite from Basin 6 exceeded the potential effects threshold (ER-L) for copper, lead, mercury, nickel, zinc, total DDT and total PCBs. The sediments from Basin 7 exceeded the ER-L thresholds for copper, mercury and total DDT.

6. Biological testing of the Basin 6 and 7 sediments was conducted to determine suitability for ocean disposal at the LA-2 site. This included solid phase sediment toxicity testing (with the amphipod *Ampelisca abdita* and the polychaete worm *Neanthes arenaceodentata*), suspended phase elutriate testing (with bivalve larvae of *Mytilus galloprovincialis*, juvenile fish of *Menidia beryllina* and mysid shrimp *Americamysis bahia*) and bioaccumulation testing of tissue samples (with the clam *Macoma nasuta* and the polychaete worm *Nereis virens*).

7. In correspondence dated September 12, 2016, the United States Environmental Protection Agency (USEPA) determined that the results of the physical, chemical and biological testing showed that the Basin 6 and 7 sediments are suitable for unconfined aquatic disposal at the LA-2 ocean disposal site. USEPA's determination is based on the sediments passing the Ocean Testing Manual suspended and solid phase toxicity bioassays, as well as the fact that the tissue bioaccumulation results demonstrated that PCBs did not bioaccumulate to a level of concern. Sediment chemistry values generally were near or below ERL values, with the exception of PCBs. Sediment PCB values were 92.99 parts per billion and 22.77 parts per billion in Basins 6 and 7 respectively. When exposed to these Basin 6 and 7 sediments, both *Macoma* and *Nereis* showed significant accumulation of PCBs compared to exposure to reference sediments. However, the PCB tissue concentrations observed were orders of magnitude lower than the tissue residue effect values (TRVs) listed in the United States Army Corps of Engineer's Environmental Residue Effects Database (ERED). ERED contains multiple values for each compound and the TRVs chosen for comparison in this case represent the lowest effect concentration in similar species to those tested. Therefore, USEPA concluded that the PCBs present in the sediments have a low bioaccumulation potential.

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TABLE 1. Sediment grain size and chemistry results for Basins 6 and 7, Alamitos Bay Marina from 2016 sediment characterization study.

Analyte	B6 Composite	B7 Composite	ERL/ERM
Grain size (%)			
Sand	31.89	84.57	NA
Clay	13.09	3.63	NA
Silt	55.01	11.80	NA
Arsenic (ppm)	5.63	62.95	8.2/70.0
Cadmium (ppm)	0.626	0.257	1.2/9.6
Chromium (ppm	30.5	13.7	81.0/370
Copper (ppm)	78.1	39.3	34.0/270
Lead (ppm)	50.6	20.8	46.7/218
Mercury (ppm)	0.176	0.180	0.2/0.71
Nickel (ppm)	22.0	9.41	20.9/51.6
Silver (ppm)	0.333	0.153	1.0/3.7
Zinc (ppm)	180	71.5	150/410
Total chlordane (ppb)	2.1	1.7	0.5/6.0
Total PAHs (ppb)	642.6	227.1	4022/44792
Total DDTs (ppb)	2.4	4.1	1.6/46.1
Total PCBs (ppb)	92.99	20.77	22.7/180

ERL = Effects Range Low; ERM = Effects Range Median; NA = Not Available
ppm = parts per million; ppb = parts per billion
DDTs = dichloro-diphenyl-trichloroethane
PCBs = polychlorinated biphenyls
PAHs = polynuclear aromatic hydrocarbons

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8. The City of Long Beach obtained a permit from the United States Army Corps of Engineers for the Alamitos Bay Marina Rehabilitation Project (SPL-2007-00348-KW). An Environmental Impact Report (SCH No. 2008041028) was certified by the City of Long Beach on February 2, 2010 for the Alamitos Bay Marina Rehabilitation Project in accordance with the requirements of the California Environmental Quality Act.

9. The City of Long Beach considered options for beneficial reuse of the dredged material according to the Los Angeles Contaminated Sediments Task Force's decision tree. Beneficial reuse for beach replenishment or construction material was found to be infeasible for Basin 6 material due to the high fines content of the material to be dredged. Although Basin 7 material would be suitable for beach replenishment, it is not economically feasible to handle this small volume of material (1,700 cubic yards) separately from the material to be dredged and disposed of from Basins 3 and 6. Therefore, ocean disposal at LA-2 was chosen as the only feasible available alternative for disposal of all of the dredged material.

10. 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 Alamitos Bay. The requirements contained in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.

11. The beneficial uses of Alamitos Bay are: industrial process supply, navigation, water contact recreation (potential), non-contact water recreation, commercial and sport fishing, estuarine habitat, marine habitat, wildlife habitat, wetland habitat, shellfish harvesting, and preservation of rare, threatened or endangered species.

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

13. 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 City 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.

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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 City 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.

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. 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

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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 of 30,565 cubic yards from Basin 3, a maximum of 16,350 cubic yards from Basin 6 and a maximum of 1,700 cubic yards from Basin 7, and for disposal of a maximum of 48,615 cubic yards of clean sediment at the LA-2 offshore ocean disposal site.

2. The City of Long Beach 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, disposal operations; written confirmation shall follow within one week.

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

4. The City of Long Beach shall provide the following information to the Regional Board:

   a. A copy of the final permit issued by the United States Corps of Engineers for the dredge and disposal operations.

   b. The scheduled date of commencement of each dredging and disposal operation at least one week prior to initiation of dredging.

   c. Notice of termination of dredging and disposal operations, within one week following the termination date.

5. The City of Long Beach shall submit, under penalty of perjury, technical reports to the Regional Board in accordance with specifications prepared by the Executive Officer.

6. In accordance with section 13260(c) of the Water Code, the City of Long

Beach shall file a report of any material change or proposed change in the character, location, or volume of the waste.

7. These requirements do not exempt the City of Long Beach 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.

8. 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.

9. 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.

10. 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;

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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.

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

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 December 8, 2016.

SAMUEL UNGER, P.E.
Executive Officer

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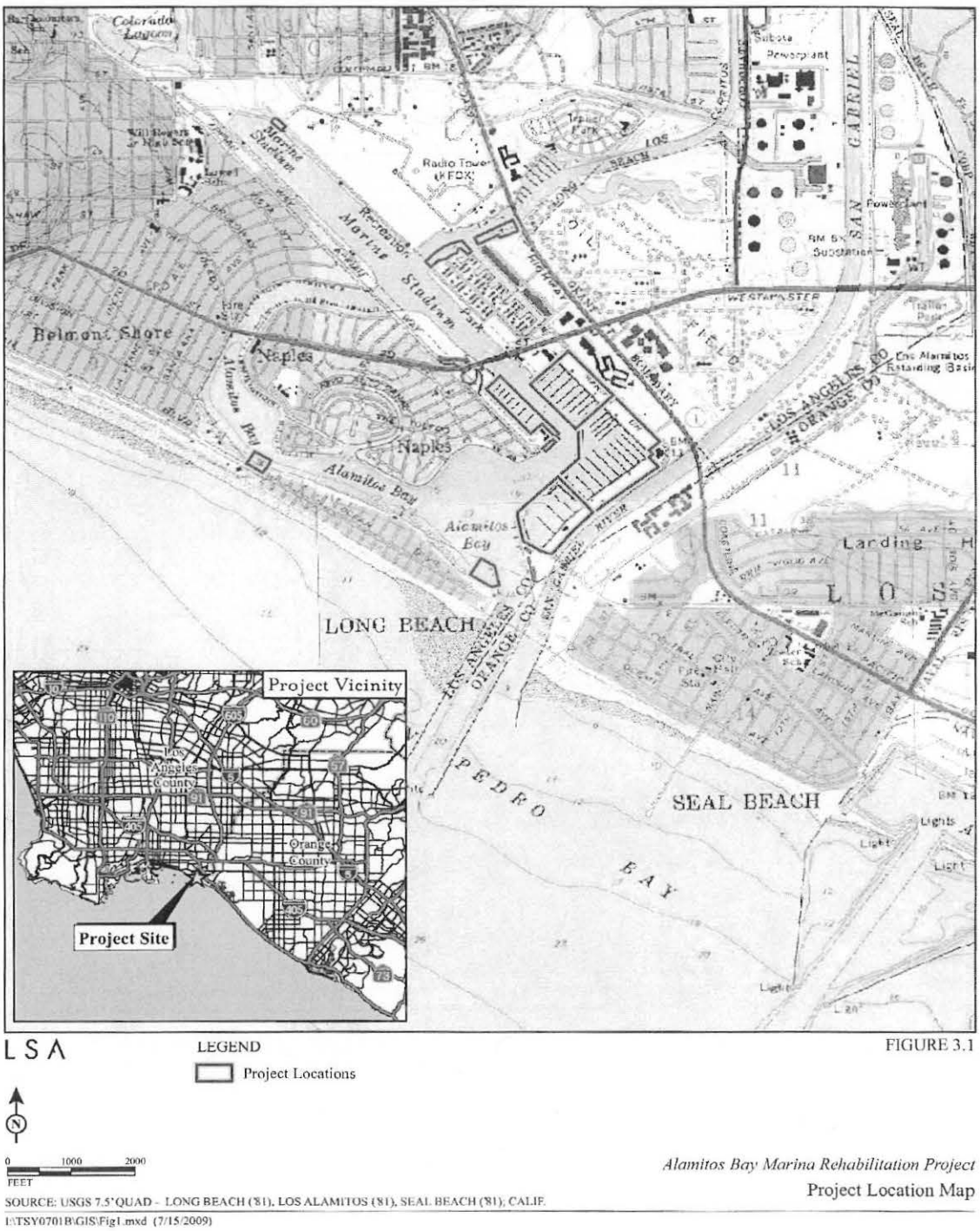

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Figure 1. Location of Alamitos Bay Marina Rehabilitation Project.

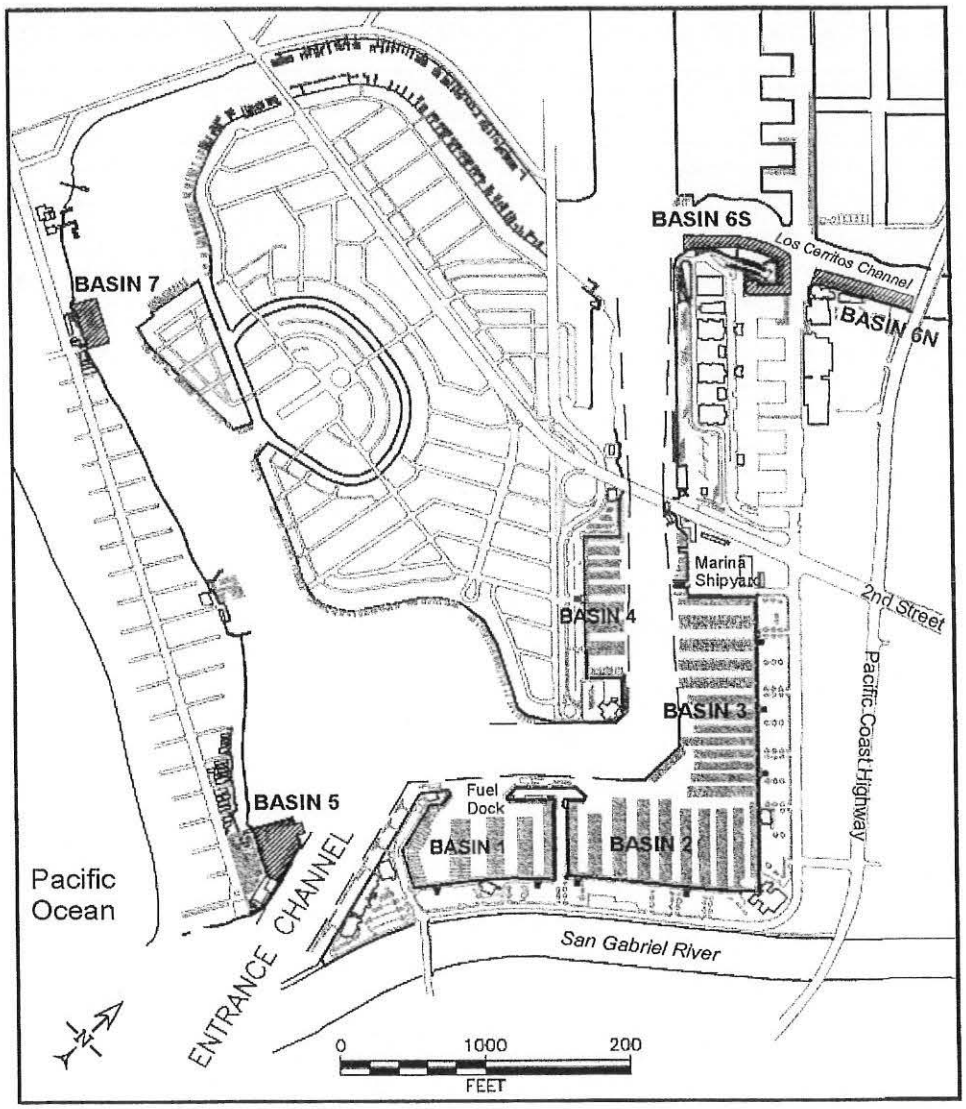

Figure 2. Project Area: Alamitos Bay Marina Docking Basins

Figure 2. Location of Basins 3, 6 and 7 within Alamitos Bay Marina.

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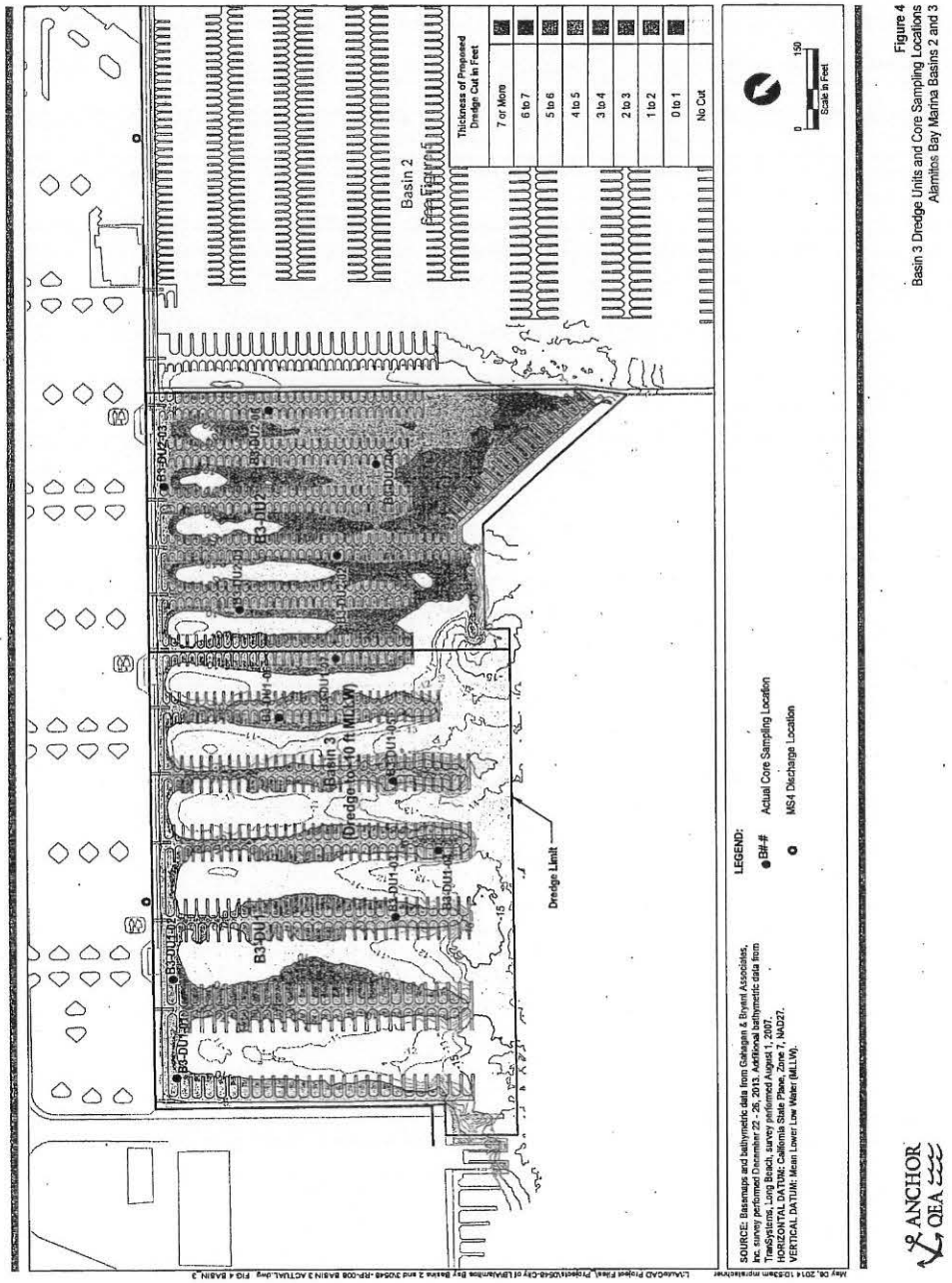

Figure 4
Basin 3 Dredge Units and Core Sampling Locations
Alamitos Bay Marina Basins 2 and 3

TENTATIVE

Figure 3. Areas to be dredged within Basin 3 and sediment coring station locations for 2014 sediment characterization study.

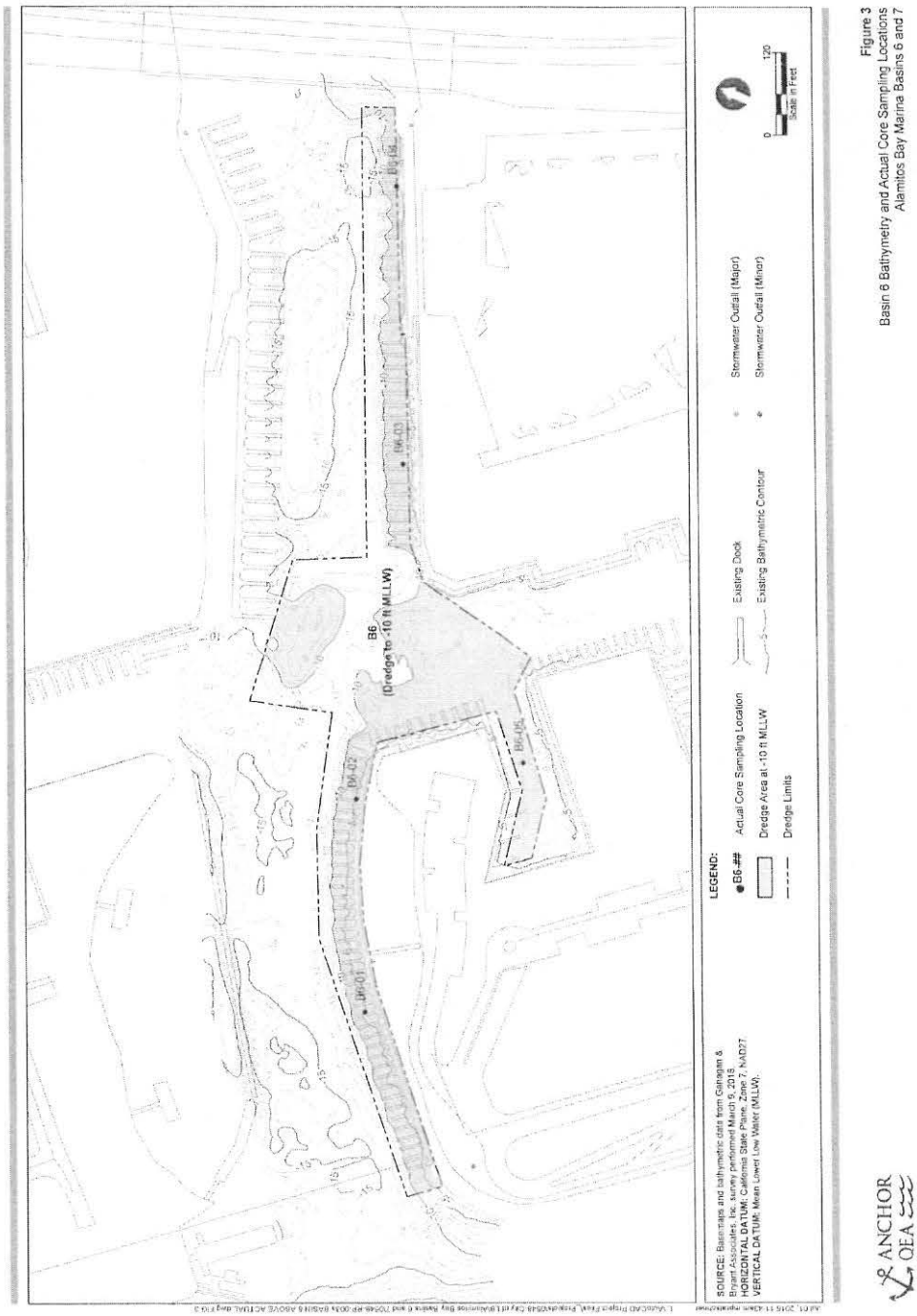

Figure 3
Basin 6 Bathymetry and Actual Core Sampling Locations
Alamitos Bay Marina Basins 6 and 7

TENTATIVE

Figure 4. Areas to be dredged within Basin 6 and sediment coring station locations for 2016 sediment characterization study.

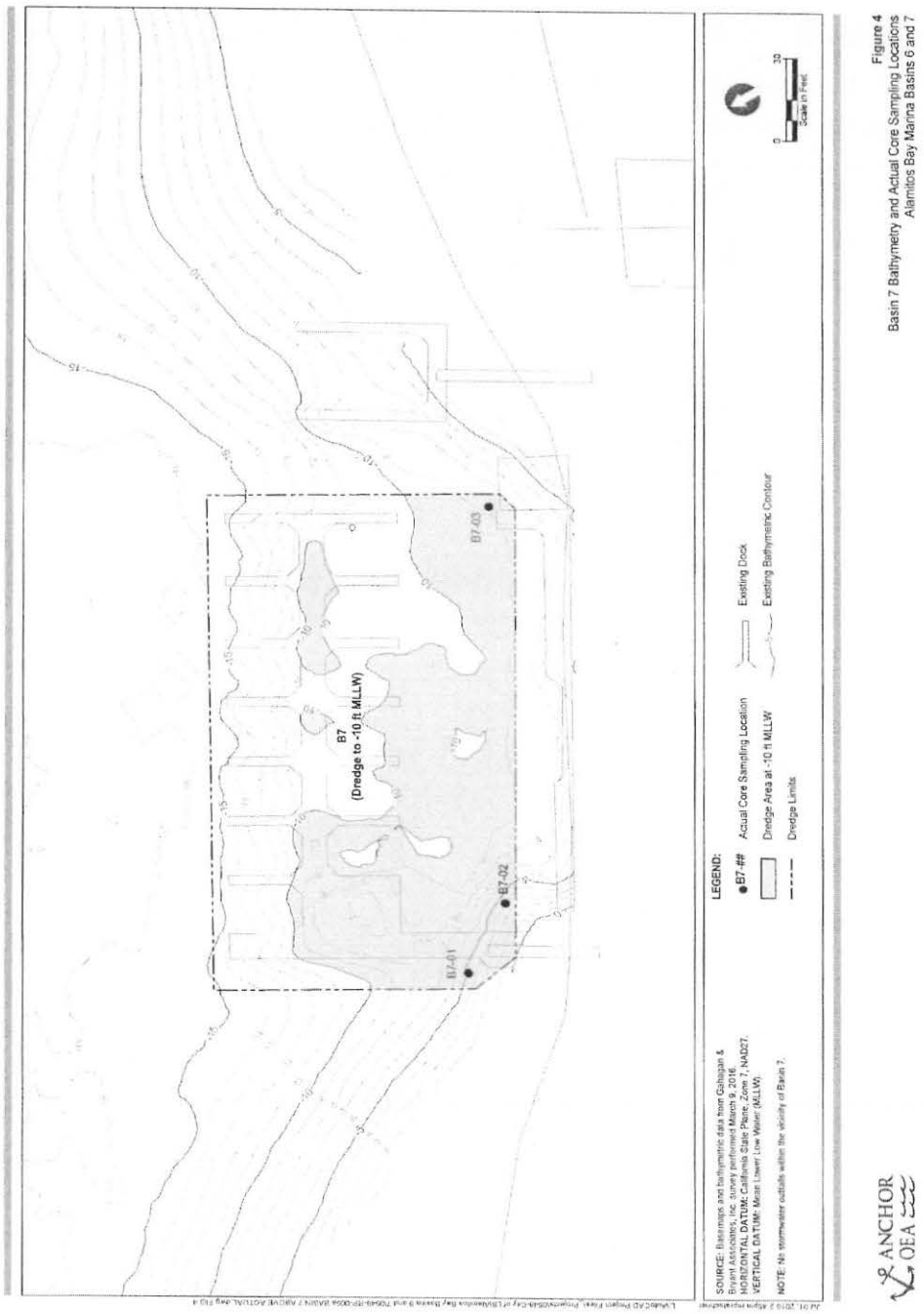

Figure 4
Basin 7 Bathymetry and Actual Core Sampling Locations
Alamitos Bay Marina Basins 6 and 7

Figure 4. Areas to be dredged within Basin 7 and sediment coring station locations for 2016 sediment characterization study.

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

MONITORING AND REPORTING PROGRAM NO. 9647
FOR
CITY OF LONG BEACH
(ALAMITOS BAY MARINA REHABILITATION)
(FILE NO. 10-110)

1. Receiving Water Monitoring

The following sampling protocol shall be undertaken by the City of Long Beach 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. 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.
B	30.5 meters (100 feet) down current of the dredging operations, safety permitting.
C	91.5 meters (300 feet) down current of the dredging operations.
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.

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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, the City of Long Beach shall conduct the standard water quality monitoring described above for three consecutive days following the date of exceedance. The City of Long Beach 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. The City of Long Beach 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 City of Long Beach 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.

The City of Long Beach 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 California Department of Public Health, Environmental Laboratory Accreditation Program (ELAP), or approved by the Executive Officer.

The City of Long Beach 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 City of Long Beach 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.

5. Reporting

Monitoring reports shall be submitted within 10 days following each weekly sampling period. In reporting, the City of Long Beach 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.

6. General Provisions for Reporting

For every item where the requirements are not met, the City of Long Beach 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, P.E.
Executive Officer

Date: December 8, 2016

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