



Edmund G. Brown Jr. governor

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

December 14, 2015

Ms. Elvira Hallinan Parks, Recreation and Marine City of Long Beach 205 Marina Drive Long Beach, CA 90803

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

Dear Ms. Hallinan:

Reference is made to our letter of October 7, 2015, which transmitted copies of tentative waste discharge requirements (WDRs) and a receiving water monitoring program for dredging and disposal of dredged material from the City of Long Beach Alamitos Bay Marina Rehabilitation Project in Long Beach, Los Angeles County.

In accordance with the California Water Code, this Board, at a public meeting held on December 10, 2015, reviewed the tentative requirements, considered all factors in the case and adopted Order No. R4-2015-0263 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 (<u>http://geotracker.waterboards.ca.gov</u>). Reference all technical monitoring reports required by this Order to our Compliance File No. 9647. 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.

W/MICHAEL LYONS Staff Environmental Scientist

Enclosures

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

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 Wildlife (San Diego) 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) 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

## 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 City of Long Beach filed an application for renewal of Waste Discharge Requirements contained in Regional Board Order No. R4-2010-0201, adopted on November 4, 2010, for the planned Alamitos Bay Marina rehabilitation project, located in Alamitos Bay in Long Beach, Los Angeles County (Figure 1). The Alamitos Bay Marina opened nearly 60 years ago and was in a deteriorated condition and in need of upgrades to make the marina consistent with current market demands. The overall purpose of the proposed project was to rehabilitate the Alamitos Bay Marina by repairing and replacing aged infrastructure, including maintenance dredging to remove shoaled materials that posed a hazard to navigation.
- 2. Order No. R4-2010-0210 authorized the City of Long Beach to dredge approximately 308,220 cubic yards of sediment from Basins 1-7 of Alamitos Bay Marina. The dredged materials from Basins 2-7 were deemed suitable for disposal at the LA-2 ocean disposal site by the United States Environmental Protection Agency. Due to elevated concentrations of mercury in portions of Basin 1, approximately 41,000 cubic yards of dredged material were deemed unsuitable for ocean disposal and were proposed for disposal within the Port of Long Beach's Middle Harbor Confined Disposal Site (the preferred alternative) or to be trucked to the Kettleman Hills Hazardous Waste Facility in Kings County, California.
- 3. The City of Long Beach dredged approximately 194,686 cubic yards of material from Basins 1, 2, 3, 4 and 5 (Table 1) under Order R4-2010-0210. Approximately 41,900 cubic yards of dredged material from Basin 1 were disposed of within the Port of Long Beach's Middle Harbor Confined Disposal Site. Approximately 152,786 cubic yards of dredged material from Basin 1-5 were disposed of at the LA-2 ocean disposal site.

September 29, 2015

Location	Completion Date	Volume Dredged (Cubic Yards)	Disposal Site
Basin 4	Fall 2011	42,565	LA-2 Ocean Disposal
Basin 1	Summer 2012	69,690	LA-2 Ocean Disposal (27,790 cubic yards); Middle Harbor Slip Fill (41,900 cubic yards)
Basin 5	Winter 2013	2,718	LA-2 Ocean Disposal
Basin 2 Docks 11-14	Winter 2014	34,279	LA-2 Ocean Disposal
Basin 2 Docks 15-22	Spring 2015	28,518	LA-2 Ocean Disposal
Basin 3 Phase 1	Spring 2015	16,466	LA-2 Ocean Disposal
TOTAL		194,686	152,786 cubic yards to LA-2 41,900 cubic yards to Middle Harbor

TABLE 1. Dredging and Disposal Activity from 2011 to 2015.

- 4. The City of Long Beach proposes to limit the scope of work covered by the renewal of the waste discharge requirements to the following elements: 1) completion of dock replacement work in Basins 2 and 3 (Figure 2); and 2) dredging and disposal of approximately 31,000 cubic yards of sediment from Basin 3 (to deepen the basin to -10 feet mean lower low water, plus 2 feet of overdredge allowance) (Figure 3).
- 5. A sediment characterization study was conducted in February 2014 to assess sediment quality within Basin 3 of the Alamitos Bay Marina. Seven vibracore samples were collected from dredging area B3-DU1 and composited for analysis and five vibracore samples were collected from dredging area B3-DU2 and composited for analysis (Figure 3).

6. Results from the 2014 sediment characterization study are shown in Table 2. Sediments were predominately fine-grained, consisting of silts and clays (ranging from 74.6 to 85.9 percent). Moderate levels of sediment contamination were present. Several compounds (copper, lead, nickel, zinc, mercury, total chlordane, total DDT and total PCBs) were present at concentrations where potential toxicity effects could occur (exceeded effects range-low, or ER-L, thresholds). However, only total chlordane and total DDT exceeded the level at which toxicity effects would be probable (effects range-median, or ER-M, threshold).

Due to the elevated PCB concentrations observed in the composite samples, additional analyses were performed to assess the PCB concentrations present in the individual core samples. Within Basin 3, total PCB concentrations showed considerable variability among the 12 individual core samples, ranging from 5.22 to 86.77 ppb, and nearly always were substantially lower than the concentrations measured in the two composite samples. However, reanalysis of the composite samples yielded much higher values than those found for the individual cores, similar to the concentrations found when the composites were originally analyzed.

Sediment toxicity testing with the amphipod *Ampelisca abdita* indicated that the Basin 3 sediments were non-toxic (98% survival for both composite samples B3-DU1 and B3-DU2). Sediment toxicity testing with the polychaete worm *Neanthes arenaceodentata* also indicated that the Basin 3 sediments were non-toxic (88 to 96 % survival). Elutriate testing with the mysid shrimp *Americamysis bahia* indicated that the Basin 3 sediments were non-toxic (96 to 100% survival). Elutriate testing with *Menidia beryllina* also indicated that Basin 3 sediments were non-toxic (84 to 100% survival). Bioaccumulation testing with the clam *Macoma nasuta* and the polychaete worm *Nereis virens* showed that the tissue burdens of trace metals and trace organics after exposure to Basin 3 sediments were below residue-effect thresholds established by the United States Environmental Protection Agency.

7. In a letter dated July 24, 2015, the Unites States Environmental Protection Agency indicated that the dredged material from Basins 3 is deemed suitable for disposal at the offshore ocean disposal site LA-2.

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 due to the high fines content (ranging from 71 to 76 percent silt/clay). Therefore, ocean disposal at LA-2 was chosen as the only feasible available alternative for disposal of the dredged material.

TABLE 2. Sediment grain size and chemistry results for Basin 3, Alamitos Bay Marina from 2014 sediment characterization study.

Analyte	B3-DU1 Composite	B3-DU2 Composite	ERL/ERM
Grain size (%)			· · · · · · · · · · · · · · · · · · ·
Sand	24.3	28.5	NA
Clay	16.6	15.4	NA
Silt	59.1	56.1	NA
Arsenic	5.67	6.08	8.2/70.0
(ppm)			
Cadmium	0.995	0.902	1.2/9.6
(ppm)		<u>с</u>	
Chromium	31.4	34.2	81.0/370
(ppm			·
Copper	81.8	84.2	34.0/270
(ppm)			
Lead	53.2	56.5	46.7/218
(ppm)	,	,	
Mercury	0239	0.284	0.2/0.71
(ppm)			· · · · ·
Nickel	22.0	22.8	20.9/51.6
(ppm)			
Silver	0.434	0.352	1.0/3.7
(ppm)			
Zinc .	185	168	150/410
(ppm)			
Total chlordane	2.9	6.6	0.5/6.0
(ppb)			
Total PAHs	567.6	47.3.3	4022/44792
(ppb)			
Total DDTs	16.2	46.6	1.6/46.1
(ppb)			
Total PCBs	92.2	161.0	22.7/180
(ppb)			

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

- 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 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.
- 10. 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.
- 11. 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.
- 12. 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.

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:

## City of Long Beach

Alamitos Bay Marina Rehabilitation

#### 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 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.

## City of Long Beach

Alamitos Bay Marina Rehabilitation

- g. Any condition of pollution or nuisance.
- B. Provisions
  - 1. The Discharge Requirements specified above are valid only for dredging of a maximum of 31,000 cubic yards of sediment and disposal of a maximum of 31,000 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.

# City of Long Beach

## Alamitos Bay Marina Rehabilitation

- 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;
  - 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.

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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 10, 2015.

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Samuel Urgen

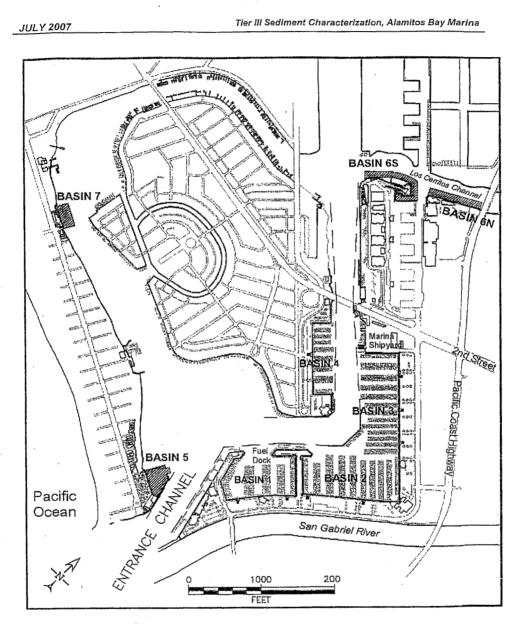
SAMUEL UNGER, P.E. Executive Officer

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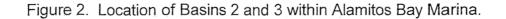


Figure 1. Location of Alamitos Bay Marina Rehabilitation Project.

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City of Long Beach Alamitos Bay Marina Rehabilitation

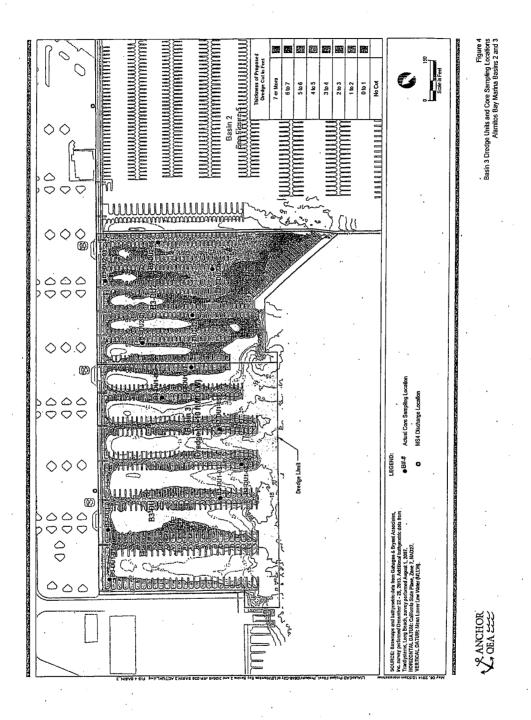


Figure 3. Areas to be dredged within Basin 3 and sediment coring station locations for 2014 sediment characterization study...

## 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.
В	30.5 meters (100 feet) down current of the dredging operations, safety permitting.
С	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	<u>Units</u>	<u>Station</u>	Frequency
Dissolved oxygen <sup>1</sup> Light transmittance <sup>1</sup> pH <sup>1</sup> Suspended solids <sup>3</sup>	mg/l % Transmittance pH units mg/l	A-D """ ""	Weekly <sup>2</sup> " ".

<sup>1</sup>Measurements shall be taken throughout the water column (at a minimum, at 2-meter increments).

<sup>2</sup>During the first two weeks of dredging, stations shall be sampled two times per week. <sup>3</sup>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;

Monitoring and Reporting Program No. 9647 City of Long Beach Alamitos Bay Marina Rehabilitation

- 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. Monitoring and Reporting Program No. 9647 City of Long Beach Alamitos Bay Marina Rehabilitation

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 10, 2015