



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Cal/EPA Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

February 9, 2011

Mr. Rafael Holcombe
Tetra Tech, Inc.
401 East Ocean Blvd., Suite 420
Long Beach, CA 90802

WASTE DISCHARGE REQUIREMENTS CERRITOS BAHIA MARINA MAINTENANCE DREDGING (FILE NO. 09-164)

Dear Mr. Holcombe:

Reference is made to our letter of January 4, 1011, which transmitted copies of tentative waste discharge requirements (WDRs) and a receiving water monitoring program for dredging and disposal of dredged material from the Cerritos Bahia Marina Maintenance Dredging project within the Alamitos Bay in Long Beach, Los Angeles County.

In accordance with the California Water Code, this Board, at a public meeting held on February 3, 2012, reviewed the tentative requirements, considered all factors in the case and adopted Order No. R4-2011-0131 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.

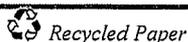
All monitoring reports should be sent to the Regional Board, Attention: Information Technology Unit. Reference all technical monitoring reports required by this Order to our Compliance File No. 9565. We would appreciate it if you would not combine other reports, such as progress or technical reports, with your monitoring reports, but would submit each type of report as a separate document.

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

J-MICHAEL LYONS
Environmental Specialist IV

Enclosures

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

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

ORDER NO. R4-2011-0031

**WASTE DISCHARGE REQUIREMENTS
FOR
CERRITOS BAHIA MARINA
(MAINTENANCE DREDGING)
(FILE NO. 09-164)**

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

1. Cerritos Bahia Marina has filed an application for renewal of Waste Discharge Requirements (WDRs) for maintenance dredging and disposal operations within the existing marina located at 6289 East Pacific Coast Highway, in the northeast portion of Alamitos Bay in Long Beach, Los Angeles County (Figures 1 and 2). Maintenance dredging is required to maintain sufficient water depth for marina operations. Cerritos Bahia Marina was created in the 1950s and currently has approximately 248 slips for small recreational boats. The marina is privately owned by Alamitos Bay Partners. The marina was dredged previously in 1991.
2. Waste Discharge Requirements (Order No. R4-2009-0129) were issued for the Cerritos Bahia Maintenance Dredging project on December 10, 2009. The project was expected to be completed during spring 2010, but was delayed due to scheduling issues with the dredging contractor. Approximately 225 cubic yards of sediment were dredged in December 2010 prior to the expiration of the WDRs on December 31, 2010. Since the project has not been completed, Cerritos Bay Marina proposes to renew the WDRs with a new expiration date of January 19, 2012 (coinciding with the expiration date of the dredging permit issued by the United States Army Corps of Engineers). The maintenance dredging project is expected to be completed by the end of spring 2011.
3. Cerritos Bahia Marina proposes to dredge a maximum of 26,867 cubic yards of sediment (Figure 3) to deepen the marina to -6 feet Mean Lower Low Water (plus a two-foot overdredge). Dredging is required throughout the marina over an area of approximately 7.8 acres, and is especially needed under the docks and in Fairways C-E and E-F. Dredging will be conducted in phases. Boats will be vacated from two docks at a time to provide sufficient area for dredge operations, thus reducing impacts on marina operations and occupancy. Dredging will be conducted using a 10-inch Barracuda hydraulic suction dredge.

December 29, 2010

Dredged material will be pumped via a 10-inch pipeline to a processing area in the Cerritos Bahia Marina parking lot for dewatering and loading into trucks for transport to the disposal site. The processing area will be approximately 200 feet by 200 feet and located in the parking lot north of the marina. It is estimated that material will be in the processing area for less than one week. Sandbags will be used to create a protective perimeter around the processing area to contain sediment. All material stockpiles will be covered by plastic sheeting during the entire period to prevent transport by wind or rain into the parking lot drainage. No processing or loading will occur while it is raining. Sediment control devices, such as silt fences, fiber rolls, gravel bag berms, sandbag barriers and straw balls will be utilized as necessary to maintain material within the processing area.

Dewatering of dredged materials will be accomplished by Genesis Fluid Solutions' Rapid Dewatering System. The system will receive a slurry of water and sediment via a 10-inch pipeline from the dredge. The initial phase of operations will separate sand and rocks utilizing screens and a hydrocyclone, which will be stockpiled for loading into trucks for transport to the disposal site. Polymers then will be added to the slurry to facilitate flocculation of the fine particles. The slurry then will be piped into the Rapid Dewatering System which will separate fine particles from the water. The separated fine particles will be stockpiled for further mechanical conditioning and loaded into trucks for transport to the disposal site. The return water will be piped to a clarifier and subsequently discharged into the marina in the vicinity of dock G.

4. Cerritos Bahia Marina proposes to dispose of the dredged material for re-use as daily cover at the Alpha Olinda Landfill in Brea, California (located within the jurisdiction of the Santa Ana Regional Water Quality Control Board). Orange County Waste and Recycling, operator of the landfill, has reviewed preliminary analytical data and determined that the dredged material should meet all title 22 requirements for disposal at the landfill. However, Orange County Waste and Recycling will require testing of the dried sediments to confirm acceptability prior to issuing final approval for disposal of the dredged material at the landfill. Santa Ana Regional Board staff has no objection to disposal of the dredged material at the landfill if it meets the acceptance criteria established by Orange Country Waste and Recycling.
5. The dredging project will result in a temporary loss of eelgrass within Cerritos Bahia Marina. The proposed project will impact a maximum of 52,000 square feet of eelgrass beds. This resource provides important ecological functions to the ecosystem and is regulated by state and federal agencies. Impacts to eelgrass therefore will need to be mitigated in accordance with the Southern California Eelgrass Mitigation Policy. Cerritos Bahia Marina proposes in-kind and on-site mitigation of the eelgrass resources at a minimum ratio of 1.2 to 1. Monitoring the

success of eelgrass mitigation shall be required for a minimum of five years in accordance with the Southern California Eelgrass Mitigation Policy. Mitigation requirements and monitoring will be subject to approval by the National Marine Fisheries Service.

6. A sediment characterization study was conducted in August 2008 to assess sediment quality within Cerritos Bahia Marina. Core samples were collected at five locations (Figure 4). Grain size and chemistry analyses were conducted for each individual core sample. The results are presented in Table 1.

Table 1. Sediment grain size and chemistry results for Cerritos Bahia Marina.

Constituent	Range of Concentrations for 5 Cores	Effects Range – Low (ER-L) Concentration	Effects Range – Median (ER-M) Concentration
Sand	57.3 – 80.1 %	Not applicable	Not applicable
Silt	16.1 – 35.5 %	Not applicable	Not applicable
Clay	3.8 – 8.8 %	Not applicable	Not applicable
Arsenic	4.2 – 15.6 ppm	8.2 ppm	70 ppm
Cadmium	0.20 – 0.87 ppm	1.2 ppm	9.6 ppm
Chromium	26.3 – 60.3 ppm	81 ppm	370 ppm
Copper	37.0 – 104.8 ppm	34 ppm	270 ppm
Lead	17.6 – 74.4 ppm	46.7 ppm	218 ppm
Mercury	0.10 – 0.17 ppm	0.15 ppm	0.71 ppm
Nickel	18.9 – 39.1 ppm	20.9 ppm	51.6 ppm
Selenium	0.09 – 0.29 ppm	Not applicable	Not applicable
Silver	0.20 – 0.30 ppm	1 ppm	3.7 ppm
Zinc	96.0 – 191.9 ppm	150 ppm	410 ppm
Total DDTs	15.8 – 156.7 ppb	1.58 ppb	46.1 ppb
Total PCBs	18.2 – 187.1 ppb	22.7 ppb	180 ppb
Total PAHs	220 - 468 ppb	4,022 ppb	44,792 ppb

ppm = parts per million; ppb = parts per billion
 DDTs = dichloro-diphenyl-trichloroethane
 PCBs = polychlorinated biphenyls
 PAHs = polynuclear aromatic hydrocarbons

7. Sediments were predominately coarse-grained, consisting primarily of sandy material (ranging from 57.3 to 80.1 % sand at the five sites tested). Moderate levels of sediment contamination were present. Based on the core samples, six metals (arsenic, copper, lead, mercury, nickel, zinc) exceeded the level at which potential toxicity effects could occur (effects range-low, or ER-L, threshold), but none of these metals exceeded the level at which toxicity effects would be probable (effects range-median, or ER-M, threshold). The concentrations of total DDTs and total PCBs exceeded both the potential and probable effects thresholds (ER-L and ER-M) in some of the core samples.

The elevated sediment concentrations for certain constituents made it unlikely that the dredged material would pass the criterion for disposal at the offshore ocean disposal site (LA-2), so biological testing (sediment toxicity, bioaccumulation) was not conducted.

8. A Negative Declaration was issued by the City of Long Beach in July 2009 for the Cerritos Bahia Marina Maintenance Dredging Project in accordance with Article III, Class I (24) and I (14) of the requirements of the California Environmental Quality Act. Cerritos Bahia Marina obtained a permit from the United States Army Corps of Engineers for maintenance dredging of the marina (SPL-2009-00408-KW).
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 Cerritos Bahia Marina 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 Cerritos Bahia Marina, 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 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 26,867 cubic yards of sediment and disposal at the Alpha Olinda Landfill in Brea, California, as proposed by Cerritos Bahia Marina.
2. Cerritos Bahia Marina 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. Cerritos Bahia Marina 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. Cerritos Bahia Marina 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, Cerritos Bahia Marina 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 Cerritos Bahia Marina 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;

- 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.

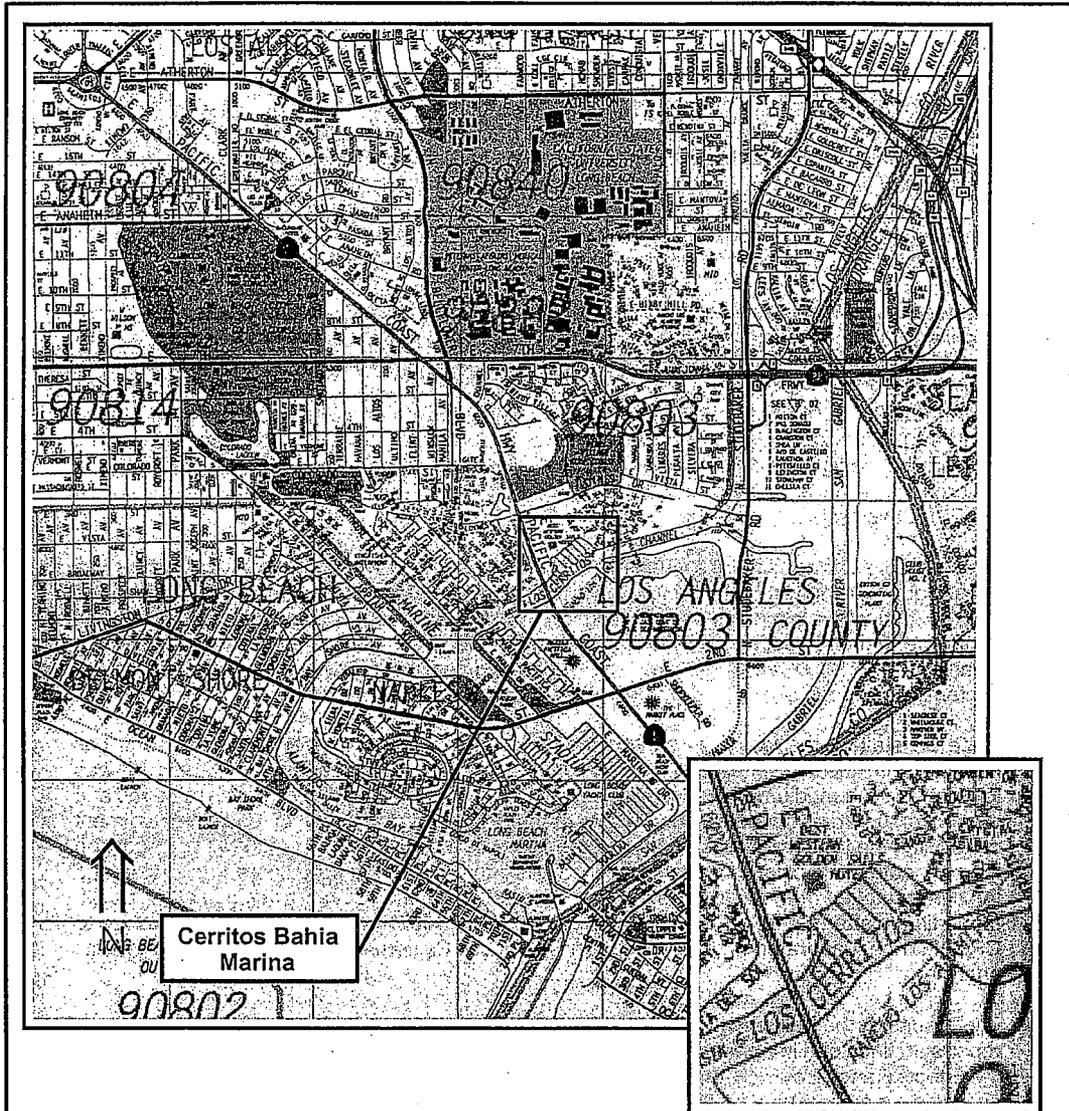
11. This Order shall expire on January 19, 2012.

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 February 3, 2011.



SAMUEL UNGER, P.E.
Executive Officer

\jml



Source: Thomas Bros. Maps

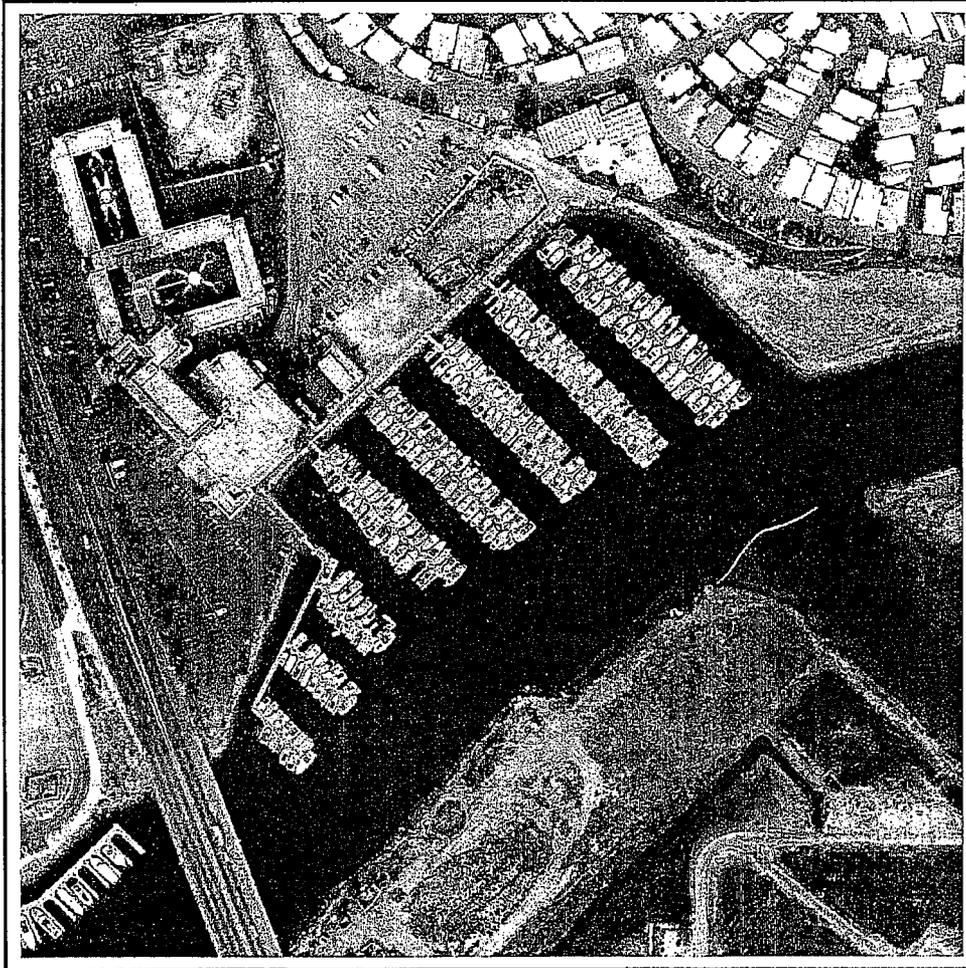


Tetra Tech, Inc.
ENGINEERS ARCHITECTS SCIENTISTS
401 East Ocean Blvd., Suite 420
Long Beach, California 90802
Ph. (562) 495-0495 fax (562) 495-5029

Site Vicinity Map
Cerritos Bahia Marina
Long Beach, California

FIGURE 1

August 2008



Source: USGS 2004



Tetra Tech, Inc.

ENGINEERS ARCHITECTS SCIENTISTS

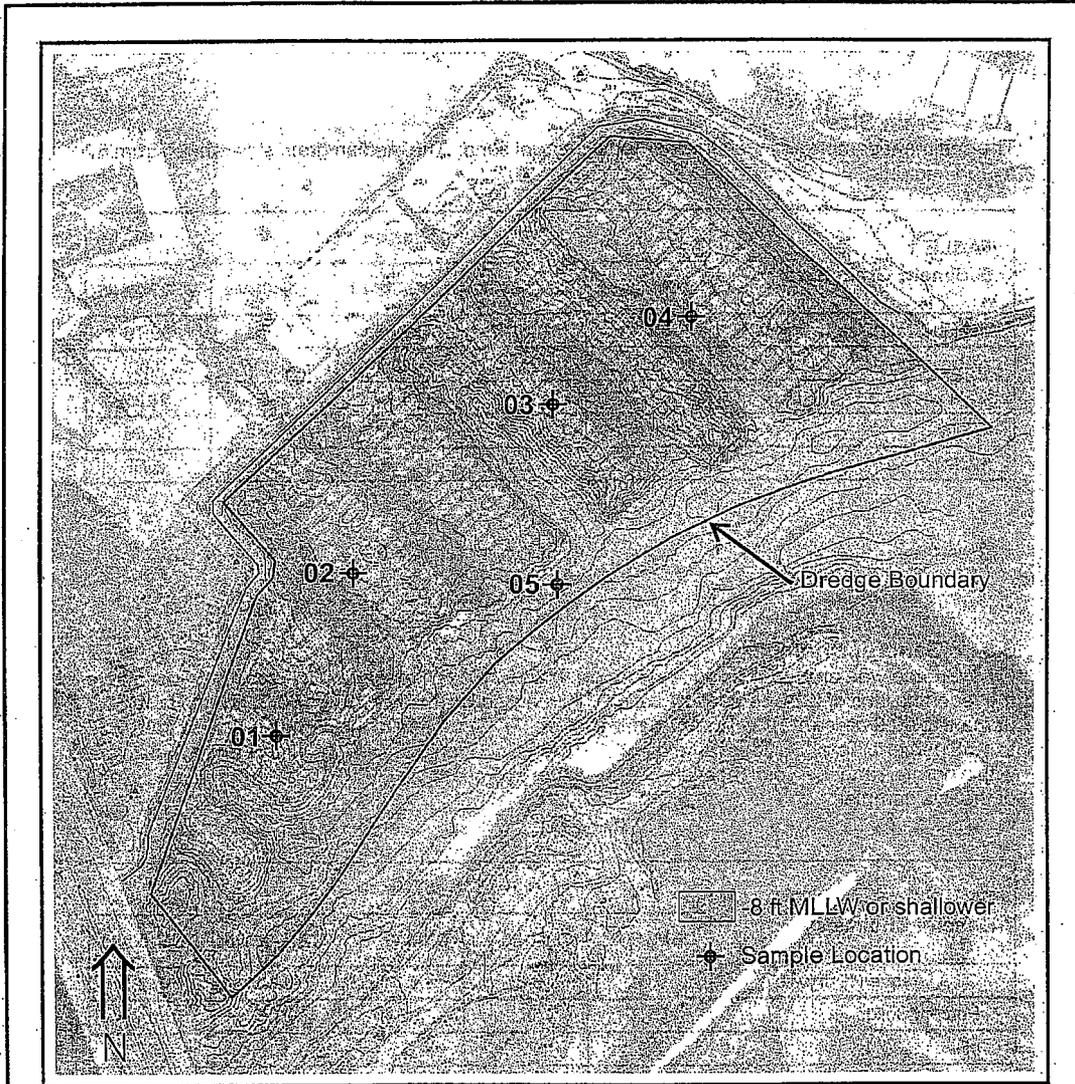
401 East Ocean Blvd., Suite 420
Long Beach, California 90802
Ph. (562) 495-0495 fax (562) 495-5029

Aerial Photograph

Cerritos Bahia Marina
Long Beach, California

FIGURE 2

July 2006



Tetra Tech, Inc.
ENGINEERS ARCHITECTS SCIENTISTS
401 East Ocean Blvd., Suite 420
Long Beach, California 90802
Ph. (562) 495-0495 fax (562) 495-5029

Project Area with Sampling Locations

Cerritos Bahia Marina
Long Beach, California

FIGURE 4

August 2008

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

MONITORING AND REPORTING PROGRAM NO. 9565
 FOR
 CERRITOS BAHIA MARINA
 (MAINTENANCE DREDGING)
 (FILE NO. 09-164)

1. Receiving Water Monitoring

The following sampling protocol shall be undertaken by the Cerritos Bahia Marina 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:

<u>Station</u>	<u>Description</u>
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).
E	15.2 meters (50 feet) from the return water discharge point.

The following shall constitute the receiving water monitoring program:

Water Column Monitoring

<u>Parameters</u>	<u>Units</u>	<u>Station</u>	<u>Frequency</u>
Dissolved oxygen ¹	mg/l	A-E	Weekly ²
Light transmittance ¹	% Transmittance	" "	"
pH ¹	pH units	" "	"
Suspended solids ³	mg/l	" "	"

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

²During the first two weeks of dredging, stations shall be sampled two times per week.

³Mid-depth shall be sampled.

T
E
N
T
A
T
I
V
E

Water column light transmittance values from Stations C and D, as well as from Stations E 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, or between stations E 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, or from Stations E and D, exceed the 30% trigger described above, Cerritos Bahia Marina shall conduct the standard water quality monitoring described above for three consecutive days following the date of exceedance. Cerritos Bahia Marina 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. Cerritos Bahia Marina 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 Cerritos Bahia Marina 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.

Cerritos Bahia Marina 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. Return Water Monitoring

Return water discharged to Cerritos Bahia Marina shall be monitored at a minimum of once daily for the following constituents: suspended solids, dissolved oxygen and pH. In addition, return water shall be monitored at a minimum of once weekly for the following constituents: metals (including arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver and zinc) and organics (including DDTs, PCBs and PAHs).

T
E
N
T
A
T
I
V
E

3. 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.

4. 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.

Cerritos Bahia Marina 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 Cerritos Bahia Marina 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, Cerritos Bahia Marina 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.

T
E
N
T
A
T
I
V
E

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 performed 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, Cerritos Bahia Marina 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)"

T
E
N
T
A
T
I
V
E

Monitoring and Reporting Program No. 9565
Cerritos Bahia Marina
Maintenance Dredging

Order No. R4-2011-0031

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: February 3, 2011

T
E
N
T
A
T
I
V
E