

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER 88-066

ISSUING WASTE DISCHARGE REQUIREMENTS FOR:

U.S. ARMY CORPS OF ENGINEERS, SAN FRANCISCO DISTRICT  
OAKLAND INNER AND OUTER HARBOR NAVIGATIONAL IMPROVEMENTS  
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (the Board), finds that:

1. The U.S. Army Corps of Engineers, San Francisco District (hereinafter called the Corps) has proposed to dredge a total of 7 million cubic yards of material from the Oakland Inner & Outer Harbors. This dredging is needed to improve the the ability of the Harbors to accomodate modern, deep-draft container ships. To address the water quality impacts of this proposal, the Corps was asked to apply for waste discharge requirements.
2. The Corps' dredging proposal consists of three elements. The first is the dredging of about 3.7 million cubic yards of material from the Inner Harbor. This dredging will deepen the channel depth to 42 feet below mean lower low water (MLLW), and will provide a 1,200 foot diameter turning circle. The second element is the dredging of about 2.8 million cubic yards of material from the Outer Harbor channel, to also deepen it to 42 feet below MLLW. The third element is the dredging of 0.5 million cubic yards from Port of Oakland berths adjacent to the above channels. The above dredging activities will also require the relocation of existing submarine utilites and the removal of existing pier structures in the vicinity of the channel deepening.
3. The Port of Oakland is acting as a local sponsor for an initial portion of this project. The Port proposes to dredge 0.56 million cubic yards (out of the total of 3.7 million, as mentioned above) of material from a four mile long section of the Oakland Inner Harbor, lowering it from 35 feet below MLLW to 38 feet below MLLW and providing an 1,100 foot diameter turning circle. This first phase also invovles the removal of an existing pier structure, for which a Negative Declaration was certified by the Port in September, 1986. The Port was likewise requested to apply for waste discharge requirements.
4. The dredged material from this first phase of the overall project, the 0.56 million cubic yards dredged by the Port,

will be disposed of at an ocean site approximately 24 miles away from the Golden Gate (in the vicinity of site B1; see Appendix B). Negotiations are still underway between the Corps and the EPA regarding the ocean disposal site for the remaining 6.5 million cubic yards that will later be dredged. In contrast to the Corps' earlier proposal, no material will be disposed of at the Alcatraz disposal site.

5. The Port of Oakland is acting as the lead agency for this project under the California Environmental Quality Act. The Port has prepared and circulated for public review and comment an Environmental Impact Report which relies upon the Corps' supplemental EIS for this project. The Port certified this report in a resolution on March 15, 1988.
6. The EIR/EIS contains physical, chemical, and biological testing of the sediment within the proposed dredging areas. The EIR/EIS identifies several adverse impacts within the waters of the state, as a result of the proposed dredging and disposal operations. These impacts include turbid conditions at both the dredging and disposal sites (the Alcatraz site), the possible distribution or bioaccumulation of any toxic materials within the dredged material, the impact upon benthic organisms at both dredging and disposal sites, and the possible increase of saltwater intrusion into the groundwater aquifers underlying the land areas of Alameda and Oakland.
7. The EIR/EIS offers several mitigative measures for these adverse impacts. The disposal material will be at an ocean site, as opposed to Alcatraz, a much more dispersive site which was originally proposed. A groundwater monitoring program has been proposed to monitor the effects of this dredging upon the Alameda and the Merritt/Posey aquifers (see the Self-Monitoring Program). The chemical and biological testing of the Inner & Outer Harbor sediment showed that "with the exception of the of the Inner Harbor turning basin, the results of the bioaccumulation and toxicity testing for Oakland Inner and Outer Harbor indicate that no unacceptable toxicity or bioaccumulation would occur in the field as a result of the disposal of dredged material from Oakland Harbor at an ocean disposal site."
8. The above testing showed that certain Inner Harbor sediments in the vicinity of the Todd Shipyard and Schnitzer Steel Co., where the new turning circles would be located, had elevated values of PAH's, PCB's, organotins, and mercury. Further testing is being done to determine the areal extent of this material, which may be unacceptable for aquatic disposal. Any material found to be unacceptable for aquatic disposal will require upland disposal, and will require evaluation by and disposal per Title 22 requirements.
9. While the dredging itself may pose some short-term water quality impacts, notably a rise in receiving water

turbidity, the Corps proposes to use a clam-shell dredge, which reduces the amount of turbidity. No long-term water quality impacts are anticipated. This order proposes some receiving water monitoring to serve as an assurance.

10. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Francisco Bay.
11. The beneficial uses of San Francisco Bay in the vicinity of the dredging area are:
  - a. Water contact recreation
  - b. Non contact water recreation
  - c. Commercial and sport fishing
  - d. Wildlife habitat
  - e. Preservation of habitat for rare and endangered species
  - f. Estuarine habitat
  - g. Fish migration and spawning
  - h. Shellfish harvesting
  - i. Navigation
12. The discharger and interested persons have been notified of the Board's intent to issue requirements for the discharge and have been provided with the opportunity to submit their written comments.
13. The Board, in a properly-noticed public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder and to the provisions of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Provisions

1. The discharge of dredged materials to the waters of the State shall take place only at the ocean disposal site formally approved of by the EPA and the Corps of Engineers.
2. That material which additional testing determines to be unacceptable for open ocean disposal shall be disposed of at an upland disposal site approved of by the Regional Board and the Department of Health Services.
3. The discharger shall comply with all sections of this Order immediately upon commencement of dredged material disposal.

4. Coordination shall take place with the Department of Fish and Game, and dredging shall not commence unless the potential biological damage of the dredging is minimized.
5. The discharger shall permit the Regional Board or its authorized representative in accordance with California Water Code Section 13267 (c):
  - a. Entry upon premises in which any required records are kept.
  - b. Access to copy any records required to be kept under terms and conditions of this Order.
  - c. Inspection of monitoring equipment or records.
  - d. Sampling of any discharge.
6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December, 1986.
7. The Board will review this Order periodically, and may revise the requirements when necessary. Unless revised, these requirements will expire after three years.
8. The discharger shall comply with the self-monitoring program as adopted by this Board and as may be amended by the Executive Officer.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 20, 1988.

Roger B. James  
Executive Officer



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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

FINAL  
SELF-MONITORING PROGRAM  
FOR

U.S. ARMY CORPS OF ENGINEERS  
OAKLAND INNER & OUTER HARBOR  
NAVIGATIONAL IMPROVEMENTS

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13325 (a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board.
2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge.

II. DESCRIPTION OF SAMPLING AND OBSERVATION STATIONS

- A 150-foot well penetrating into the Alameda formation near the location of the deep PG & E well 1S/4W34R1
- B 50-deep well penetrating the Merritt/Posey aquifer, location to be determined
- C 30-deep well penetrating the Merritt/Posey aquifer, location to be determined
- D A point 50 feet downcurrent of the dredging operation
- E A point 100 feet downcurrent of the dredging operation
- F A point 50 feet from the dredging operation, in a transverse direction to the Harbor, on the side of the disposal barge that is being excavated.
- G A point 50 feet upcurrent of the dredging operation

### III. SCHEDULE FOR SAMPLING AND OBSERVATIONS

1. Grab samples are to be taken at the stations A,B, and C, and sampled every other month for the following parameters:

water level  
temperature  
specific conductance  
chloride ion concentration  
total dissolved solids  
pH

2. Stations D through G are to be sampled at three points in the water column: one foot below the surface, mid-depth, and one foot from the bottom. The sampling of Stations D through G is to take place at least once per month during the course of the dredging project, at all locations at which dredging is occurring. The grab samples are to be analyzed for:

dissolved oxygen  
turbidity  
sulfides

### IV. REPORTS TO BE FILED WITH THE BOARD

1. Report by telephone to the Regional Board five days ahead of the scheduled date of commencement of dredging operation, and the commencement of the groundwater sampling program.

2. In the event the discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions, the discharger shall notify the Regional Board Office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problem from recurring.

3. The discharger is to commence the monitoring program as soon as possible, and continue it for at least a three year period. Quarterly reports shall be filed within 45 days of the completion of the sampling and analysis of each quarter. Annual reports shall be filed within two months following the close of a calendar year.

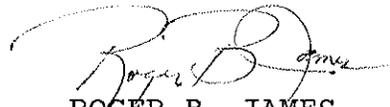
4. The first quarterly report shall contain a description and discussion of regional and site geology/hydrology, methods and procedures used in installing, developing and sampling monitoring wells, and methods and procedures used in water analyses as well as the analytical results obtained. Subsequent reports shall present only the procedures and results of groundwater sampling and analysis and groundwater flow pattern. Annual reports shall summarize the past four quarters' results and present a

discussion and assessment of the project's impact, if any, on the groundwater.

5. The written report shall contain a statement by the discharger, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

I, Roger B. James, Executive Officer, hereby certify that the forgoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order 88-066.
2. Has been ordered by the Executive Officer on April 20, 1988.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

  
ROGER B. JAMES  
Executive Officer