



California Regional Water Quality Control Board

San Diego Region



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Environmental
Protection

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July 24, 2003

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**SUBJECT: REQUEST FOR TECHNICAL REPORT PURSUANT TO CALIFORNIA
WATER CODE SECTION 13225**

Water quality in the harbors of the San Diego Region is a matter of continuing concern. Most of the existing monitoring is associated with either discharge permits or special purpose studies. These efforts do not provide information on overall water quality status and trends in the individual harbors or the ability to compare water quality conditions between harbors or portions of harbors. A single coordinated regional harbor monitoring program, covering all of the harbors in the Region, is necessary to achieve these goals. Implementation of a coordinated regional harbor monitoring program can best be achieved by insuring participation of all those discharging wastes to the water bodies involved.

This is a request for submission of a technical report consisting of a proposed coordinated and comprehensive harbor water quality monitoring program for San Diego Bay, Mission Bay, Oceanside Harbor, Del Mar Boat Basin and Dana Point Harbor. The content and areas to be addressed in this report are described in the Attachments to this request. I am requesting submission of this report by January 1, 2004.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at <http://www.swrcb.ca.gov>.

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This request is being made pursuant to California Water Code Section 13225. Section 13225(c) provides that the Regional Board may "Require as necessary any state or local agency to investigate and report on any technical factors involved in water quality control or to obtain and submit analyses of water; provided that the burden, including costs, of such reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained therefrom." The addressees have been identified to participate in this effort for the following reasons.

| Agency | Reasons for Responsibility |
|---|--|
| San Diego Unified Port District | Agency responsible for administration of land and water use programs for San Diego Bay and adjoining tidelands. Discharges wastes from municipal storm water conveyance systems to San Diego Bay. |
| City of San Diego | Agency responsible for administration of land and water use programs for Mission Bay and adjoining tidelands. Discharges wastes from municipal storm water conveyance systems to Mission Bay. |
| City of Oceanside | Agency responsible for administration of land and water use programs for Oceanside Harbor and adjoining tidelands. Discharges wastes from municipal storm water conveyance systems to Oceanside Harbor. |
| U.S. Marine Corps Base Camp Pendleton | Agency responsible for administration of land and water use programs for Del Mar Boat Basin and adjoining tidelands. Discharges wastes from municipal storm water conveyance systems to Del Mar Boat Basin. |
| County of Orange | Agency responsible for administration of land and water use programs for Dana Point Harbor and adjoining tidelands. Discharges wastes from municipal storm water conveyance systems to Dana Point Harbor. |

July 24, 2003

I recognize that the U.S. Marine Corps, Camp Pendleton is a federal entity and therefore not subject to the provisions of California Water Code Section 13225. However, I believe that active participation in the development of this monitoring program by the U.S. Marine Corps will be a significant asset to this project and also insure that the needs of Camp Pendleton are addressed in the final product. Therefore, I urge the U.S. Marine Corps to participate.

Attachment 1 describes a coordinated monitoring program that is consistent from harbor to harbor. The Southern California Coastal Water Research Project (SCCWRP) has considerable experience in developing regional coastal monitoring programs of this type. Accordingly, I encourage the addressees to work together to produce a joint product and, to the extent possible, seek assistance from SCCWRP. It is my intent to require all parties identified as significant contributors of wastes to the harbors in the San Diego Region to participate in a regional harbor monitoring program. The technical report submitted pursuant to this request will be the basis for the design and implementation of this monitoring program.

Please contact Mr. Peter Michael of my staff at (858) 467-2990 if you have any questions concerning this request.

Respectfully,



John H. Robertus
Executive Officer

Attachments

cc: See attached list

cc:

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ATTACHMENT 1**Coordinated Regional Water Quality Monitoring
In San Diego Region Harbors****Purpose**

The purpose of a coordinated regional monitoring program for San Diego Region harbors is to identify the water quality status and trends and the ability of surface waters to support beneficial uses over the long term. As a minimum the following questions are to be addressed in the program:

1. What are the contributions and spatial distributions of inputs of pollutants to harbors in the San Diego Region and how do these inputs vary over the long term?
2. Are the waters in harbors safe for body contact activities?
3. Are fish in the harbors safe to eat?
4. Do the waters and sediments in the harbors sustain healthy biota?
5. What are the long-term trends in water quality for each harbor?

Locations/Density

Monitoring is to be proposed for Dana Point Harbor, Del Mar Boat Basin at the Marine Corps Base Camp Pendleton, Oceanside Harbor, Mission Bay, and San Diego Bay. The proposed program will identify areas for ambient and focused monitoring in each harbor, the methodology for location of sampling stations, and the number of water column and sediment samples proposed for each harbor and each area identified for focused monitoring.

Scope

The proposed program is to include the following:

- Identification of significant contributors of waste loading to each harbor. In the case of marinas, docks, moorings, and anchorages, the loading from passive leaching from boat hulls is to be determined.
- Development of an ambient sampling approach for water and sediment with the capability of identifying water quality status and trends. Sampling stations for ambient monitoring are to be established using stratified random placement techniques. Random placement of stations has been used by organizations such as the Southern California Coastal Water Research Project (SCCWRP) and National Oceanic and Atmospheric Administration (NOAA) Status and Trends Program. The cost of the ambient monitoring effort would bear a reasonable

relationship to the need for monitoring and reporting and to the benefits of understanding the state of water quality¹.

- Development of focused monitoring approaches, as appropriate, in designated portions of the water bodies. At a minimum, focused monitoring is to occur in areas subject to significant waste loading; in areas influenced by significant land or water use patterns such as industrial, marina, port and other areas; and in areas identified as impaired pursuant to federal Clean Water Act Section 303(d). Focused monitoring stations are to be determined by directed point or stratified random placement techniques, or both, as appropriate. The cost of the focused monitoring effort would bear a reasonable relationship to the need for monitoring and reporting and to the benefits of understanding the state of water quality.
- Coordination and integration with the periodic Southern California Bight regional monitoring efforts administered by the Southern California Coastal Water Research Project. Currently these efforts occur at five-year intervals.
- Consideration of existing discharge permit compliance monitoring programs and ways to minimize duplication of effort.
- Provision for electronic data storage and retrieval.
- Development of reports including introduction, methods, quality assurance, quality control, results, discussion, conclusion, and summary. The reports will be made available to the public.

Constituents

Harbor authorities will recommend constituents for sediment and water sample analyses. Categories to be considered include physical observations such as temperature and water clarity; nutrients; dissolved oxygen; microbiology; toxicity; benthic community analysis; and chemistry, including fossil fuels, persistent synthetic organics, and metals, including copper. The proposed ambient monitoring effort is to take into account the need to assure the data is statistically significant. Detection limits for constituents selected for focused monitoring are to be sufficient to detect concentrations to below water quality standards²

Consistency and Data Availability

To the extent feasible, proposed monitoring and reporting will be compatible with local, state, federal, and international standards to assure the information gathered will be of future benefit within and outside of the San Diego Region. An integrated regional monitoring approach is to be followed in which data collected in all harbors would be consistent, standardized, and comparable according to accepted protocols; for example, those developed for the Southern

¹ For example, Oceanside Harbor would have fewer sampling sites than San Diego Bay.

² For example, in a water body impaired for dissolved copper listed on the CWA Section 303(d) list, to below the level of the California Toxics Rule objective.

California Coastal Water Research Project regional monitoring programs carried out in 1994, 1998, and 2003³. The numbers of stations proposed for ambient monitoring are to be adequate to provide appropriate statistical power⁴.

Quality Assurance and Quality Control

Each proposed harbor sampling and analytical effort will include quality assurance and quality control components compatible with those in other San Diego Region harbor or coastal water monitoring programs. Examples of field and laboratory quality assurance manuals are available on the SCCWRP web site, www.sccwrp.org, under the Bight'98 and Bight'03 regional monitoring programs.

Data and Reports

The proposed program will include a data element that will insure that data from the project will be presented in digital format suitable for use in a geographical information system (GIS). Repositories of data, metadata, and monitoring reports will be maintained by the lead organization for each water body, by a central repository for all harbor data in the San Diego Region, or by a combination of shared and individual repositories, as appropriate. Reports of the results of the harbor monitoring programs and data will be made available to the public. In addition to the data, methods, results, discussions, conclusions, and summaries will be included to address the degree to which water quality trends can be measured to determine to what extent water quality supports Basin Plan beneficial uses⁵. Reports are to be submitted to the Regional Board annually; or if intervals between sampling efforts exceed one year, annually for the year in which the samples were taken.

Metadata

The proposed program will insure that metadata, or data about data, will be logged and reported describing the content, quality, condition, and other characteristics of the data and using a standard format and a common set of terms. Metadata will be presented in a compatible format for use in harbor monitoring programs throughout the San Diego Region, California, and/or internationally, as appropriate (see Attachment 2).

Regional Board Contact

The San Diego Regional Board contact for this effort will be Mr. Pete Michael at (858) 467-2990.

³ See Southern California Bight regional monitoring at www.sccwrp.org.

⁴ Currently, to the 0.90 confidence interval for Bight'03.

⁵ Water Quality Control Plan for the San Diego Basin (9) available at www.swrcb.ca.gov/rwqcb9.

ATTACHMENT 2**Metadata Format**

Planning for metadata formats will take into consideration, as appropriate: federal Executive Order 12906 for coordination between the federal government and the private sector [April 13, 1994 *Federal Register*, 59 (71) pp. 17671-17674], the National Spatial Data Infrastructure, and National Biological Information Infrastructure of the U.S. Geological Service. Appropriate criteria may include those of the International Organization for Standardization (ISO) Technical Committee 211 Geographic Information Working Group 3.

Biological metadata, at a minimum, will comply with appropriate minimal guidelines for metadata; for example, minimal National Biological Information Infrastructure biological compliant metadata format containing appropriate Identification Information, Metadata Reference, Citation Information Template, Time Period Information Template, and Contact Information Template information.