

RWQCB

Regional Water Quality Control Board (RWQCB)
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General Background Information

The Porter-Cologne Water Quality Control Act (Porter-Cologne) is the principal law governing water quality regulation in California. This statute established the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB), which are charged with implementing its provisions. Porter-Cologne establishes a comprehensive program for the protection of water quality and the beneficial uses of water. It applies to surface waters, wetlands, and ground water and to both point and nonpoint sources. Porter-Cologne is found in the California Water Code beginning with Section 1300. In addition, Title 23 of the California Code of Regulations (CCR) contains administrative and regulatory elements of water quality and quantity management in California. The SWRCB was formed in 1967 when the State Water Rights Board and the State Water Quality Control Board were merged by the State Legislature, based on the realization that decisions affecting water quality and water rights are inseparable. Under its dual legal authority, the SWRCB allocates rights to the use of surface water and, together with the nine Regional Water Quality Control Boards (RWQCBs), protects water quality in all waters of the State.

Present Roles and Responsibilities

The SWRCB and the RWQCBs have primary responsibility for managing water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. The RWQCBs have responsibility for individual permits, inspection, and enforcement actions within each of nine hydrologic regions.

The RWQCBs regulate discharges under Porter-Cologne primarily through issuance of waste discharge requirements. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sewer system) must file a report of waste discharge. The SWRCB and the RWQCBs can make their own investigations or may require dischargers/non-dischargers to carry out water quality investigations and report on water quality issues. Porter-Cologne provides several options for enforcement of waste discharge requirements and other orders, including cease, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. The SWRCB also combines the water rights and the water pollution control functions of State government and considers water quality and the availability of un-appropriated water whenever rights to water use are granted or waste discharge controls are established.

Water Quality Control Plans

Porter-Cologne requires adoption of Water Quality Control Plans which contain the guiding policies of water pollution management in California. There are a number of statewide and regional water quality control plans, commonly referred to as Basin Plans, adopted by the SWRCB and by each of the RWQCBs.

All water quality control plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. They also contain an implementation, surveillance and monitoring plan. Water Quality Control Plans include enforceable prohibitions against certain types of discharges. Most water quality control planning is done by RWQCBs and is subject to SWRCB approval. Portions of water quality control plans are also subject to review by the U.S. EPA. When approved by the U.S. EPA, the water quality objectives and beneficial use designations become water quality standards under the federal CWA. In most cases, water quality objectives contained in a water quality control plan are not directly enforceable unless implemented through waste discharge requirements or a water right permit.

Basin Plans have been adopted for each of the nine regions of California. Currently, the RWQCB Basin Planning Unit is involved in the following activities:

- Implementing the Watershed Management Initiative;
- Conducting the Triennial Review of the Basin Plan;
- Developing Total Maximum Daily Loads for:

- impaired surface waterbodies in the Imperial Valley;
- the New River at the International Boundary;
- Working on the New River/Mexicali Sanitation Project;
- Participating in efforts to restore the Salton Sea; and
- Managing grant contracts.

The Planning Unit identifies water quality impairments through monitoring and assessment activities, then develops a strategy for implementation of pollution control practices for NPS pollution. Non-point source pollution is defined as pollution not originating as a discharge from a facility such as a Wastewater Treatment Plant, or other "point sources".

In the Colorado River Basin Region, wastewater resulting from agricultural practices flows into ag drains, then into the New River or the Alamo River, and eventually is discharged into the Salton Sea. This wastewater carries sediment, nutrients, pesticides, and elevated levels of Selenium. The Salton Sea, New River, Alamo River, and Imperial Valley ag drains are currently listed as impaired, meaning they are polluted to an extent that their designated Beneficial Uses cannot be fully supported. These Beneficial Uses are described in the Water Quality Control Plan for Region 7, along with Water Quality Objectives, which are pollutant limits necessary to support the Beneficial Uses for each water body in the Region.

The Mexicali and Imperial Valleys drain into the Salton Sea, representing a trans-boundary basin component of the Salton Sea Watershed. Untreated sewage and other illegal discharges into the New River in Mexicali flow into the Imperial Valley and Salton Sea. Currently there is bi-national cooperation in addressing this problem, with a new wastewater treatment plant planned for construction in Mexicali.

Past, Current, and Future Monitoring Programs

1. New River / Mexicali Sanitation Program (1975 - present)

The main purpose is to assess to what degree the sanitation projects improve water quality of the New River at the boundary. Monitoring data indicate that the New River is polluted by pesticides, bacteria, silt, nutrients (e.g. nitrate and phosphate), and volatile organic constituents.

Currently, the New River's headwaters originate about 15 miles south of the City of Mexicali, in the Mexicali Valley, Mexico. The New River carries urban runoff, untreated

and partially treated municipal wastes, untreated and partially treated industrial wastes, and agricultural runoff from the Mexicali Valley into the United States. After it crosses the International Boundary at Calexico, California, the New River travels about 60 miles through Imperial County before it discharges its entire flow into the Salton Sea. By the time the New River reaches the Salton Sea, most of its flow consists of wastewater in the form of agricultural runoff from Mexico and Imperial County.

The California Regional Water Quality Control Board, Colorado River Basin Region, has been actively involved in the cleanup of the New River and has been a significant force in molding the proceedings. The Regional Board has monitored the water quality of the New River from 1975 to the present. For this particular program, sampling was - and still is - carried out at one station (New River at the International Boundary), a USGS flow gauge station. Up until 1995, the sampling frequency varied from quarterly to monthly, with each sampling event lasting approximately 24 hours and 8 hours, respectively. The main constituents analyzed include ions, VOCs, nutrients, suspended solids, fecal Coliform Bacteria, and others, measured in the surface waters.

Future monitoring will include sampling of sediments for Dioxins, and PCBs at the border and addition of downstream monitoring stations, including the outlet to the Salton Sea mid point stations, and at least one agricultural drain (for the sake of comparison). Currently, there is also a quality assurance plan being developed in conjunction with the EPA.

[The Regional Board is addressing the New River's water quality problems attributable to activities in the United States (e.g. agricultural drainage) through the development and implementation of Total Maximum Daily Loads for the constituents impairing the river. Officials from the United States and Mexico Sections of the International Boundary and Water Commission (IBWC) and several United States and Mexican agencies recognized that considerable planning and work was required to solve the water quality problems attributable to activities in Mexico. However, they also recognized that long-term planning and construction activities would take several years to implement and that immediately needed measures could be defined and implemented in the interim to address the problems. The strategy for the short- and long-term solutions for the sanitation of the New River at the International Boundary was agreed upon by the federal governments of both Mexico and the United States under the IBWC's Minute No. 288, adopted in October 1992.]

2. Toxic Substances Monitoring (TSM) Program (1978 – present)

This program is a statewide program, focusing on fish tissue sampling. It was initiated in 1978 and continues up to the present. Sampling locations vary each year due to changes in funding and decision making based on priorities of pollution control efforts. Sampling is carried out once a year, at approximately 10 different stations distributed along the New River, the Alamo River, and in the Sea itself. These sites are generally selected by somebody from the basin-planning department. Lat/Long coordinates (down to seconds, have references to USGS quad maps) are available for each station in the database (see CD). The data collection represents part of the ambient monitoring efforts and is used as

a guidance for pollution control. The data vary depending on whatever fish species are caught (composite samples). Constituents measured include metals, organics, PCBs, and pesticides. The field work and lab analysis are conducted by the Department of Fish and Game (contact person: Jack Lynn). The data are compiled and integrated into a statewide data structure; the TSM program has its own quality control program.

3. Trend Monitoring Program (1980 – 1993)

This program represents part of the ambient monitoring efforts and supports the 305(b) and 303(d) lists.

Section 303 (d) (A)(1) of the Clean Water Act (CWA) requires the California Regional Water Quality Control Board, Colorado River Basin Region (hereafter Regional Board), to:

- *Identify the Region's waters which do not comply with water quality standards applicable to such waters;*
- *Rank the impaired waterbodies taking into account, among other criteria, the severity of the pollution and the uses made of such waters; and*
- *Establish TMDLs for those pollutants causing the impairments to ensure that impaired waters attain their beneficial uses.*

Section 303 (b). The National Water Quality Inventory Report to Congress (305(b) report) is the primary vehicle for informing Congress and the public about general water quality conditions in the United States. This document characterizes our water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect our waters.

The Regional Board intends to reinstate this program and to add more stations, with an increased focus on pesticide monitoring (PCBs, toxic pollutants, Selenium, etc.). The stations are distributed throughout the region. To date, sampling constituents include the general battery such as ions, bacteria, conventional parameters (pH, conductivity, etc.), and are sampled in surface waters (surface grab samples). The sampling frequency varies between monthly, quarterly, and yearly – prioritized based on the size of the water body and relative to associated issues.

The information is archived in digital form in the database (no annual reports). Data documentation is limited at this point in time. The majority of the sample analysis is conducted in-house (non certified lab).

For future monitoring, the Regional Board will be developing a quality assurance plan that meets all requirements defined by the RWQCB protocols and the EPA QAR5 plans.

4. TMDL Development and Compliance Monitoring

Future plans include more focused studies on the 303d) list. Currently, the Regional Board is working on the development of two TMDLs that will be implemented in the coming months. In this context, there will be extensive monitoring conducted on the New River, the Alamo River, and tributary drains.

New River. Constituents of interest will include selenium, pesticides, sediments, and bacteria. The TMDL developed for the New River will have a focus on pathogens. In the past (1999), sampling was conducted at two stations located along the New River, at the border, and at the outlet in the past. This year, the sampling sites will be increased to ten stations.

Alamo River. Constituents of interest will be the same as for the New River, except with less bacteria sampling. The TMDL will be focused on sediments. Sampling will be conducted at five stations seven stations stretching from the border to its outlet. Several other stations, including many agricultural drains, were also monitored during the development of this TMDL.

Salton Sea. The Regional Board plans to develop a nutrient TMDL for the Salton Sea. This project would include a monthly sampling program, with data being collected in the New River and Alamo River deltas, along various agricultural drains, and in the Sea itself. Constituents of interest will include nutrients (nitrogen and phosphorous), sediments, organic pollutants, conventional parameters (pH, conductivity, etc.), and pesticides. The data collection would occur once a month.

The purpose is to assess the current external nutrient loading to the sea.

GIS Activities

Currently, the RWQCB7 staff have a GIS workstation running PC ArcView and a Color Plotter. There is limited in-house GIS expertise, although two of the current staff know the basics of running ArcView. Regional Board staff currently utilize this work station for the generation of maps for plans and reports, simple spatial calculations, and some geospatial data management. The staff have assembled GIS data from a number of different sources, including the Salton Sea Digital Atlas, but have yet to synthesize this data.

Pending future funding, the Regional Board plans to expand, within the next several years, its GIS capabilities to include an ArcInfo server, and several workstations running ArcView, along with a dedicated GIS coordinator.

Interaction with other Agencies

- California Dept. of Fish and Game
- U.S. Geological Survey
- Arizona Dept. of Game and Fish
- California State Agencies
- Baja State Agencies
- Federal International Boundary Water Commission

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Data Used and Generated

Danny McClure provided the SSDP with a CD containing information and data about the various programs described above.

Data Format. Most data are archived in Excel spreadsheets or are available in hardcopy reports.

Opportunities and Constraints to Data Sharing

Virtually all of the above mentioned data collected by the RWQCB is public data, and thus will be made available to persons and agencies requesting it once it has been through the proper quality control checks. Draft data may be made conditionally available before it is finalized.