



CALIFORNIA WATER BOARDS

State Water Resources Control Board

Regional Water Quality Control Boards

Water Board Function: Regulation of municipal and industrial waste discharges to surface water

Water Board Program(s) Relevant to Function:

National Pollutant Discharge Elimination System (NPDES) Program and Waste Discharge Requirements (WDR) Program (see function sheet for waste discharge to land).

Problem/Issue Description:

Discharges to surface water bodies have the potential to affect water quality and impact their beneficial uses. Municipal sources are publicly-owned treatment works (POTWs) that receive domestic sewage from residential and commercial customers. Larger POTWs will also typically receive and treat wastewater from industrial facilities (indirect dischargers) connected to the POTW sewerage system. The types of pollutants treated by a POTW will always include conventional pollutants, and may include non-conventional and toxic pollutants depending on the unique characteristics of the commercial and industrial sources that discharge to the POTW. Some industrial and commercial facilities discharge directly to a surface water. Unlike municipal sources, the types of pollutants discharged by industrial facilities vary widely, depending on the type of industry and specific facility processes and products.

Overview of Function:

Since 1972 the Clean Water Act (CWA) has regulated the discharge of pollutants to navigable waters. Since 1973 California has been delegated the NPDES permit program from the U.S. Environmental Protection Agency and thus prepares and issues the permits. NPDES permits contain effluent limitations that prescribe the level of pollutants allowed in the discharge. These limits are based on either technology-based limits or water-quality based limits. Technology-based limits require that the best available technology (BAT) be used for the removal of pollutants. Water-quality based limits are those limits that are more stringent than technology-based limits and are applied when necessary to achieve water quality standards as set by a basin plan's beneficial uses and water quality objectives.

Permits can be issued for individual discharges or as a "general" permit for a class or group of discharges. Permits are issued for a five-year period and must be reviewed and reissued every five years. Facilities are also classified as either "major" or "minor" facilities depending on the volume and/or type of pollutants discharged.

NPDES permits establish specific requirements for discharges from municipal and industrial sources, and affect how sanitary and industrial wastewater is handled. Individual permits are established for POTWs. Industrial facilities that discharge wastewater to a municipal sewer system are covered under the NPDES pretreatment

program. Industrial facilities that discharge wastewater directly to a surface water require an individual or general NPDES permit.

Industrial facilities that discharge to sanitary sewer systems of larger agencies are required to pre-treat their wastes so that they approximate the strength of domestic sewage. Sewer agencies are required to have a pre-treatment program that monitors these industrial dischargers. The Water Boards audit this pre-treatment program to ensure compliance with the regulations.

Discharges to surface water that are not covered under the CWA may be regulated in California by Waste Discharge Requirements as authorized in State statutes (see function sheet for waste discharge to land). This occurs when the surface water is a water of the State and is not under federal jurisdiction or the discharge type is exempted in the CWA, such as agricultural drainage. Other special cases exist as well for discharges of storm water, pesticides, wastes from concentrated animal feeding operations, and wastes from vessels.

Role of Water Board Staff:

Prepares and submits NPDES permit for consideration and adoption by Regional Board, reviews monitoring and technical reports, inspects facilities, prepares appropriate enforcement actions when necessary.

Role of Regional Board Members:

Conducts public hearing, and considers and adopts NPDES permits.

Role of State Board Members:

Reviews petitions from Regional Board adoption of NPDES permits. Adopts statewide policies for discharges and permitting such as the State Implementation Policy (SIP) for the California Toxic Rule, Bays and Estuaries Policy, Ocean Plan, and the Compliance Schedule Policy.

Primary Issues of Concern:

California Toxics Rule and State Implementation Policy (SIP) – The U.S. EPA promulgated the California Toxics Rule (CTR) and the State Water Board's SIP sets the procedures for facilities to comply with these water quality standards. Essentially, facilities are required to do monitoring to determine the reasonable potential for CTR pollutants to exist in their discharges and then take steps to limit them. The compliance period for implementation ends in 2010 and some facilities are not in compliance yet.

Once-through cooling – Coastal power plants require NPDES permits for their cooling water intakes and discharges. Once-through cooling systems draw large amounts of water that entrain small sea-life or impinge larger sea-life on the intake screens. Recently the Phase II federal regulations dealing with existing facilities and allowing mitigation measures were suspended. The majority of power plant NPDES permits are expired and will need to be re-issued using existing regulations. Most power plants will not be able to meet the requirements and may have to switch to closed-cycle cooling.

Coordinating the re-issuance of these permits while maintaining critical power generating facilities will be important.

Total Maximum Daily Loads (TMDLs) – When a water body is impaired and not meeting its beneficial uses, adoption of a TMDL is required. TMDLs set the waste load allocations for the different waste sources and NPDES permits must implement these allocations when re-issued.

Definition of Key Terms:

Pollutant – is very broadly defined in the CWA and includes sewage, solid wastes, heat, and industrial wastes.

Navigable waters – are waters of the U.S. and generally include all interstate waters; including interstate wetlands; territorial sea and adjacent wetlands; and all waters currently used, used in past, or susceptible to interstate or foreign commerce. Also includes all tributaries and impoundments of these waters. Navigable waters was interpreted more broadly until the U.S. Supreme Court Rapanos decision implied more limitations to its application.