



Water Quality Regulation

How California Does It



STATE WATER RESOURCES CONTROL BOARD

California Program Based on State and Federal Law

- State law - Porter-Cologne Water Quality Control Act
- Federal law - Clean Water Act

Porter-Cologne Act

- Enacted in 1969
- Key state agencies - State Water Resources Control Board and nine Regional Water Quality Control Boards
- Key programs – planning and permitting waste discharges to state waters

Regional Water Board Regions

1. North Coast



2. San Francisco



3. Central Coast



4. Los Angeles



8. Santa Ana



9. San Diego



6. Lahontan



5. Central Valley



7. Colorado River



Regional Water Boards – Primary Functions

- Regional water quality control planning
- Regulating waste discharges to waters within region

Planning

- Regional Water Boards adopt water quality control plans for waters within region.
- Plans must:
 - Identify waters
 - Designate their beneficial uses, e.g., aquatic habitat
 - Establish water quality objectives to protect the uses
 - Include implementation program to achieve objectives
- Regional Water Boards implement plans through permitting program.

Waste Discharge Regulation

- Regional Water Boards issue federal National Pollutant Discharge Elimination System (NPDES) permits to point source dischargers to surface waters.
 - Point sources discharge pollutants from pipes, culverts, and other discrete conveyances.
- Regional Water Boards issue Waste Discharge Requirements (WDRs) or conditional waivers to nonpoint source dischargers to surface waters or groundwater.
 - Nonpoint sources generally include everything that is not a point source. Nonpoint sources typically release pollutants from landscape scale features and include, for example, agricultural runoff and unregulated stormwater. Aerial deposition can be a nonpoint source.

State Water Board - Key Functions

- Establishes state policy for water quality control, e.g. Toxics Policy or SIP
- Adopts statewide water quality control plans, e.g. Ocean Plan
- Issues statewide general NPDES permits, e.g., general stormwater permits for construction and industry and general WDRs
- Oversees Regional Water Board activities – through review of petitions challenging their actions, basin plan review, budgetary control
- Acts as state water pollution control agency for all federal Clean Water Act purposes

1972 Federal Clean Water Act

- Water Quality Standards Program
 - States must adopt standards for all surface waters.
 - Standards are: beneficial uses, criteria, and an antidegradation policy.
 - California's standards are in basin plans, statewide plans, and policies.

1972 Federal Clean Water Act (cont.)

- Keystone – NPDES permit program
 - Act absolutely prohibits point source discharges to surface waters without a permit.
 - Permit program incorporates both technology-based and water quality-based controls, i.e. controls derived from water quality standards.
 - Permits must include the more stringent of technology-based or water quality-based effluent limitations.
 - States can implement the program upon EPA approval. California has an approved program.
 - States can be more stringent.

1972 Federal Clean Water Act (cont.)

- Total Maximum Daily Loads – Clean Water Act §303(d)
 - States must list and rank all waters that don't meet standards.
 - States must develop TMDLs to attain standards.
 - TMDL is a written plan that describes how a water body will meet standards.
 - TMDLs generally establish total allowable pollutant loading to a water and allocate the load to all pollution sources, both point and nonpoint, within the impaired watershed; background inputs are included and a margin of safety.

1987 Amendments to Clean Water Act

- New focus on toxics
 - States required to adopt numeric criteria for priority toxic pollutants (about 126) by 1991.
 - U.S. EPA adopted the National Toxics Rule in 1992 to bring states into compliance.
 - U.S. EPA adopted the California Toxics Rule in 2000 and State Water Board concurrently adopted Toxics Policy.
- Stormwater Permitting
 - Required industrial stormwater permits
 - Established phased approach for permitting municipal separate storm sewer systems based on population

TMDL Litigation in late 1980's

- Point source regulation successful so focus shifted to nonpoint sources
- Environmental groups sued EPA over states' failure to do TMDLs and were generally successful.
- EPA has 3 consent decrees in California covering the LA region, the North Coast, and Newport Bay and tributaries.
- Since initial litigation, California's program has been upheld in court.

Impact of Aerial Deposition on Water Quality Regulation

- Stormwater permits
 - Urban runoff is regulated under general stormwater permits.
 - Permits use a best management practices (BMP) approach to regulate pollutants.
 - Owner or operator of storm sewer system is generally responsible for pollutants discharging from the storm drain, e.g. pesticides in runoff from lawn watering that ends up in the storm drain becomes the system owner's responsibility. The same is true for pollutants in storm water due to aerial deposition.

Impact of Aerial Deposition on Water Quality Regulation (cont.)

- TMDL program
 - Aerial deposition can be a significant source of pollutants to an impaired water. Atmospheric pathway can be critical element in some TMDL calculations.
 - If aerial deposition occurs directly onto a water body, the deposition can be assigned a load allocation as a nonpoint source. If aerial deposition indirectly affects water quality through stormwater runoff, the owner or operator of the storm drain can be assigned a waste load allocation.

Impact of Aerial Deposition on Water Quality Regulation (cont.)

- Permits
 - There are no cases in which aerial sources, e.g., stacks, have been considered point sources, subject to an NPDES permit.
 - EPA considers aerial deposition to be a nonpoint source.



STATE WATER RESOURCES CONTROL BOARD