

WATER QUALITY:

The Federal Process, State Implementation Programs, and Nonpoint Source Permitting

PART 1. THE FEDERAL REGULATIONS UNDER THE CLEAN WATER ACT: TOTAL MAXIMUM DAILY LOADS

❖ TOTAL MAXIMUM DAILY LOAD (TMDL): OVERVIEW

- A written plan that provides a mechanism for determining the causes of waterbody impairment
- Specifies the maximum amount of a pollutant that can be discharged or the amount that must be reduced
- Allocates responsibility among different pollutant discharge sources
- Seeks to reduce pollutant emissions to achieve water quality standards
- Incorporated by the Regional Water Quality Control Boards into their Basin Plans (Implementation)

❖ TOTAL MAXIMUM DAILY LOAD (TMDL): THE LISTING AND DELISTING PROCESS

- States are required to periodically evaluate their waters and submit a report to the Environmental Protection Agency (EPA)
- States must also submit and maintain a list of waters that are not attaining water quality standards.
 - Water quality standards can be based on either state or federal standards
 - Listing often occurs because of a potential impairment or anecdotal evidence
 - The list generally includes:
 - Name of the waterbody
 - Pollutant
 - Potential Source
 - Priority for developing a TMDL (e.g., high, low, etc.)
 - Once the list is approved States are to develop TMDLs
- California is currently working on the development of a statewide listing program
- Delisting historically requires a larger quantity of evidence

❖ TOTAL MAXIMUM DAILY LOAD (TMDL): DEVELOPMENT ROADMAP

- Stakeholder Involvement:
 - Importance of local review and involvement
 - Should occur throughout the development process
 - Help to correct misguided assumptions or erroneous data as early as possible
 - California agencies are required to respond to properly submitted comments
- Waterbody assessment:
 - Monitoring data is collected and/or evaluated
 - Sources of pollution and amounts are identified
- Total load is defined and allocations assigned:
 - Allocations of pollutant load to all sources are established
 - Total allocation must result in the waterbody attaining the applicable water quality standards.
 - TMDLs can be expressed as mass, thermal energy, toxicity or other appropriate measures.
- Implementation Plan: (to be discussed in more detail below)
 - Not required under federal law
 - Description of the approach and activities to be undertaken to ensure the allocations are met and identification of parties responsible for carrying out the actions.
- Incorporation into RWQCB Basin Plan:
 - The Basin Plan is a legal document that describes how a Regional Board would manage water quality.
 - Basin Plan amendments are adopted through a public process that requires approval of the TMDLs by a Regional Board, the State Board, the Office of Administrative Law, and USEPA Region 9.

❖ TOTAL MAXIMUM DAILY LOAD (TMDL): GENERAL REPORT COMPONENTS

- Problem Statement:
 - Describes which water quality standards are not being attained, which beneficial uses are impaired, and the nature of the impairment.
- Numeric or Interim Targets:
 - Defines the level(s) for gauging compliance or achievement
 - Susceptible to high levels of subjectivity
 - Legality is questionable
- Source Analysis:
 - Identifies the amount, timing, and point of origin of pollutants of concern.
 - May be based on field measurements and/or models and estimations.

- Allocations:
 - Allocates responsibility and identifies the parties to take the specified actions.
 - The sum of individual allocations must equal total allowable pollutant burden.
- Linkage Analysis:
 - How the numeric targets relate to the problem
 - Describes how the actions to be taken will result in achievement of the relevant standards.
- Margin of Safety:
 - May be implicit (i.e., using conservative assumptions), or explicit (i.e., a discrete allocation assigned to the margin of safety).
 - Susceptible to high levels of subjectivity
- Implementation Plan:
 - Not required by federal law
 - Describes what actions will be undertaken to alleviate the impairments.
- Monitoring/ Re-evaluation:
 - Describes the monitoring strategy
 - May set out procedure for evaluation and consideration of TMDL revisions.

❖ TOTAL MAXIMUM DAILY LOAD (TMDL): STATE IMPLEMENTATION PLANS

- Description of the nature of the actions necessary to achieve objectives
 - Time schedule for actions to be taken
 - Description of surveillance to determine compliance
- Federal Law requires that TMDLs, upon EPA approval, be incorporated into the state's water quality management plan (Basin Plan)
- State Law requires that Basin Plans have a program of implementation to achieve water quality objectives
- Economics Analysis:
 - Required when RWQCB implements an agricultural water quality control program
 - Agricultural water quality program defined broadly
 - Must identify the total cost of the program and potential sources of financing
 - Not necessarily a total cost/benefit analysis. The statute does not define "agricultural" programs.

PART 2. CALIFORNIA REGULATIONS UNDER THE PORTER-COLOGNE WATER QUALITY CONTROL ACT

- ❖ **CALIFORNIA REGULATION OF WATER QUALITY: OVERVIEW**
 - Differences between state and federal law
 - Regulatory Tools and Traditional Uses
 - Waste Discharge Reports (WDRs)
 - Waivers of WDRs
 - Prohibition of discharge
 - Other administrative tools (Cleanup and Abatement Orders, etc.)
 - Historical management in California
 - Legislative Changes

- ❖ **CALIFORNIA REGULATION OF WATER QUALITY: PERMIT BASED APPROACH**
 - Waste Discharge Reports (WDRs):
 - Permits
 - Applicability
 - State vs. Federal
 - Scope:
 - Regional
 - Statewide
 - Individual
 - General Requirements:
 - Paperwork
 - Filing fee
 - Monitoring program
 - Other associated costs

- ❖ **CALIFORNIA REGULATION OF WATER QUALITY: NONPOINT SOURCE MANAGEMENT**
 - NPS vs PS definition
 - Historical management
 - Statewide Guidance: California Nonpoint Source Pollution Control Plan
 - Broad state and federal approval
 - Management actions
 - Tier 1
 - Tier 2
 - Tier 3
 - Flexibility

❖ CALIFORNIA REGULATION OF WATER QUALITY: WDR WAIVERS

- Benefits
- Legislative Changes
- General requirements for coverage/ compliance
 - Not against public interest
 - Issued by RWQCBs, not SWRCB
- Adoption / Renewal process