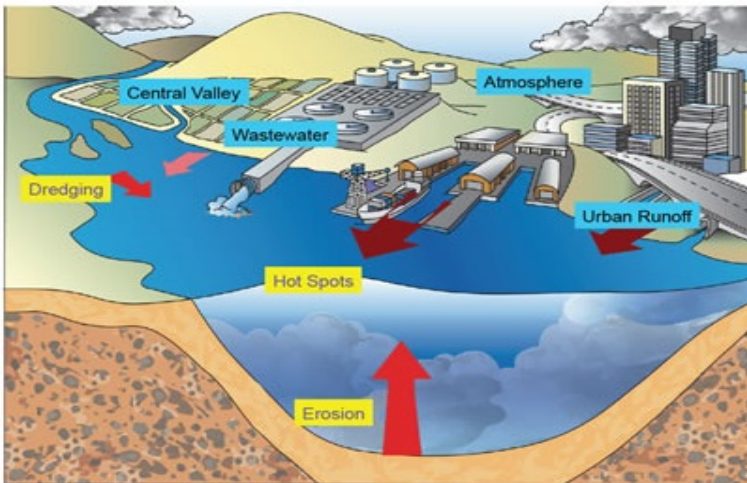




Total Maximum Daily Loads (TMDLs)



Total Maximum Daily Loads (TMDLs) are action plans to restore clean water. [Section 303\(d\) of the federal Clean Water Act](#) requires that states identify water bodies -- bays, rivers, streams, creeks, and coastal areas -- that do not meet water quality standards, and the pollutants that impair them. TMDLs examine the water quality problems, identify sources of pollutants, and specify actions that create solutions. They are adopted by the Regional Water Board as amendments to our Region's Basin Plan.

Announcements

No new announcements

What are TMDLs?

Total Maximum Daily Loads (TMDLs) are action plans to restore clean water by defining how much of a pollutant a water body can tolerate and meet water quality standards. TMDLs account for all the sources of a pollutant, including discharges from wastewater treatment facilities; runoff from homes, agriculture, and streets or highways; "toxic hot spots;" and deposits from the air. In addition to accounting for past and current activities, TMDLs may also consider projected growth that could increase pollutant levels. The San Francisco Bay Regional Water Quality Control Board (Regional Board) is developing more than 30 TMDL projects to address more than 160 listings for water bodies impaired by specific pollutants.



Defines indicators and associated target(s) necessary to meet numeric or narrative water quality standards.

Source Analysis: Assesses the relative contributions of different pollutant sources or causes and the extent of necessary reductions/controls.

Linkage Analysis: Describes the relationship between numeric target(s) and sources and estimates the ability of the water body to assimilate the pollutant.

Allocations: Allocates responsibility for pollutant reduction. Allocations may be specific to agencies or persons (businesses), or general by source category or sector. The sum of individual allocations must equal the total allowable pollutant level.

Loading Capacity with Margin of Safety: The loading capacity is the amount of the pollutant that can be allowed yet still attaining standards. The margin of safety accounts for uncertainty associated with calculating pollutant loads and their impact on water quality. The margin of safety may be implicit (i.e., through use of conservative assumptions) or explicit (i.e., by assigning a specific allocation to the margin of safety).

Implementation Plan: Details pollution prevention, control, and restoration actions, responsible parties; and schedules necessary to attain water quality standards. Identifies enforceable measures (e.g. prohibition) and triggers for Regional Board action (e.g., performance standards).

Monitoring/Re-evaluation: Describes the monitoring strategy that will be used to evaluate the effectiveness of the TMDL and a schedule for reviewing and, if necessary, revising the TMDL and associated implementation elements.

How are TMDLs
Developed?



Completed
TMDLs



TMDLs in
Development





Resources



Contact

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Quick Links

- [Clean Water Act Section 303\(d\)](#)
- [303\(d\) List of Impaired Water Bodies](#)
- [Statewide TMDL Information](#)
- [Basin Plan](#)
- [US EPA TMDL Site](#)
- [US EPA Region 9 TMDL Site](#)

(Updated 9/2/25)

Water is a precious resource in California, and maintaining its quality is of utmost importance to safeguard the health of the public and the environment.

Statewide Campaigns



EPA Water Sense



Report an Environmental Concern



Save Our Water



Flex Alert



Register to Vote



Your Actions Save Lives

**COVID-19
UPDATES**



 [Grievance Procedure](#)

 [Help / Business Help](#)



Resources

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The California Water Boards include the [State Water Resources Control Board](#) and nine [Regional Boards](#)

The State Water Board is one of six environmental entities operating under
the authority of the California Environmental Protection Agency

[CalEPA](#) | [ARB](#) | [CalRecycle](#) | [DPR](#) | [DTSC](#) | [OEHHA](#) | **[SWRCB](#)**