Water Quality Report Card

Pathogens in Tomales Bay Tributaries

Regional Water Board: San Francisco Bay, Region 2

Beneficial Uses Affected: REC-1

Implemented Through: WDRs, Discharge Prohibitions, NPDES Permits

Effective Date: January 10, 2007 (TMDL)

Attainment Date: To Be Determined

STATUS: Conditions Improving

Pollutant Type: Point Source; Nonpoint Source

Pollutant Source:
- Grazing
- Confined Animal Facilities (dairies, equestrian facilities)
- Urban Storm Water Runoff
- Onsite Wastewater Treatment Systems

Water Quality Improvement Strategy

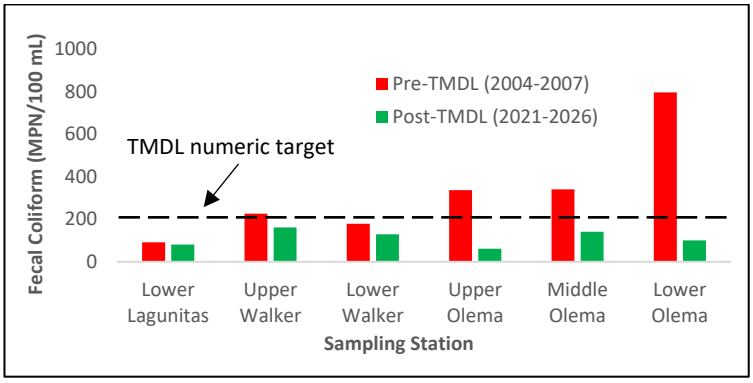
The Tomales Bay Watershed is located approximately 30 miles northwest of the City of San Francisco, in western Marin County. In 2007, the Tomales Bay Pathogen TMDL was approved to address pathogen impairments in Tomales Bay (Bay), and its main tributaries: Lagunitas, Walker, and Olema creeks. The main sources of pathogens (indicated by fecal coliform), were identified as on-site wastewater treatment systems (OWTS), such as septic systems, small wastewater treatment facilities, boat discharges, cattle grazing, dairies, equestrian facilities, and urban storm water runoff. The TMDL is implemented through a strategy for reducing pathogen sources to the Bay and its tributaries. Implementation actions include: discharge prohibitions for OWTS, wastewater treatment facilities, and boats; increased regulation of grazing lands, dairies, and horse facilities through waste discharge requirements; and the regulation of urban storm water runoff through the Statewide Phase II NPDES municipal storm water permit.

TMDL Numeric Target

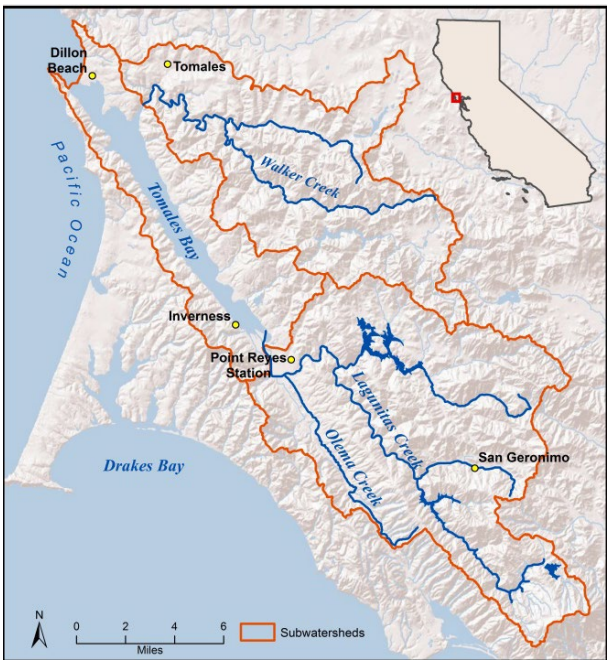
Water Body	Fecal Coliform (MPN[a]/100mL)
Tomales Bay Tributaries	Geometric Mean[b] < 200

a. Most Probable Number
b. Based on a minimum of five consecutive samples equally spaced over a 30-day period.

Average Fecal Coliform Concentrations for Tomales Bay Tributaries



Tomales Bay Watershed Map



Water Quality Outcomes

- *Water quality data are collected and reviewed every year to determine the success of TMDL implementation actions and to see if TMDL targets have been achieved.*
- *Water quality data show a significant reduction in fecal coliform concentrations at most sampling stations.*
- *Key actions resulting in improved water quality include implementation of Best Management Practices (BMPs) on grazing lands and at dairies, and construction of a community wastewater treatment system to collect and treat septage from more than 50 individual septic systems.*
- *Next steps include continuation of scheduled implementation actions, the implementation of new and revised permits for grazing operations and confined animal facilities (CAFs), and the refinement of water quality monitoring, as needed.*

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