

Total Maximum Daily Load Progress Report	
Regional Water Board	San Francisco Bay, Region 2
Beneficial uses affected:	REC-1, REC-2, SHELL
Pollutant(s) addressed:	Pathogens (Fecal Coliform)
Implemented through:	<a href="#">WDRs</a> , Discharge Prohibitions, <a href="#">NPDES Permits</a>
Approval date:	January 10, 2007

Tomales Bay Pathogens TMDL	
<b>STATUS</b>	<input type="checkbox"/> Conditions Improving
	<input type="checkbox"/> Data Inconclusive
	<input checked="" type="checkbox"/> <b>Improvement Needed</b>
	<input type="checkbox"/> TMDL Achieved/Waterbody Delisted

### TMDL Summary

Tomales Bay and its main tributaries are impaired by pathogens. We infer the presence of pathogens from high fecal coliform bacteria (pathogen indicator) concentrations. Pathogens pose potential health risks to recreational users (REC-1) and shellfish consumers (SHELL). The main sources of pathogens to the bay and its tributaries are on-site wastewater treatment systems (OWTSs), small wastewater treatment facilities, boat discharges, grazing lands, dairies, equestrian facilities, and municipal runoff. The San Francisco Bay Regional Water Board adopted a [TMDL for Tomales Bay](#) that was approved by the U.S. EPA in January 2007.

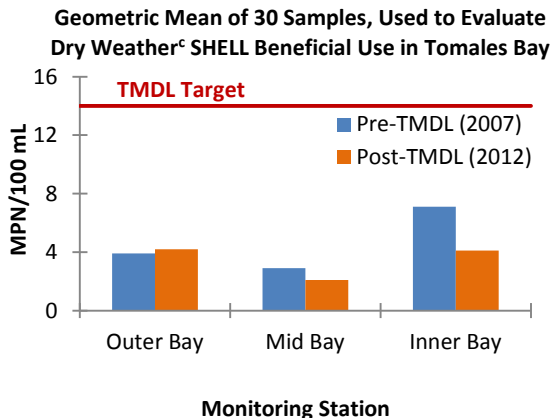
The TMDL is implemented through a broad-based strategy for reducing pathogen sources to the bay and its tributaries. Implementation actions include prohibitions of discharge for OWTSs, wastewater treatment facilities, and boats, increased regulation of grazing lands, dairies, and horse facilities through waste discharge requirements (WDRs), and the [Statewide Phase II NPDES municipal stormwater permit](#). Water quality data is reviewed every five years to determine the success of implementation actions and to see if targets have been achieved.

### TMDL Waste Load Allocations/Load Allocations<sup>a</sup>

Waterbody	Numeric Targets for Fecal Coliform by Beneficial Use (MPN <sup>a</sup> /100mL) <sup>b</sup>	
	SHELL	REC-1
Tomales Bay	Geometric mean < 14 90 <sup>th</sup> Percentile < 43	Log mean < 200 90 <sup>th</sup> Percentile < 400
Tomales Bay Tributaries	Log mean < 200 90 <sup>th</sup> Percentile < 400	Log mean < 200 90 <sup>th</sup> Percentile < 400

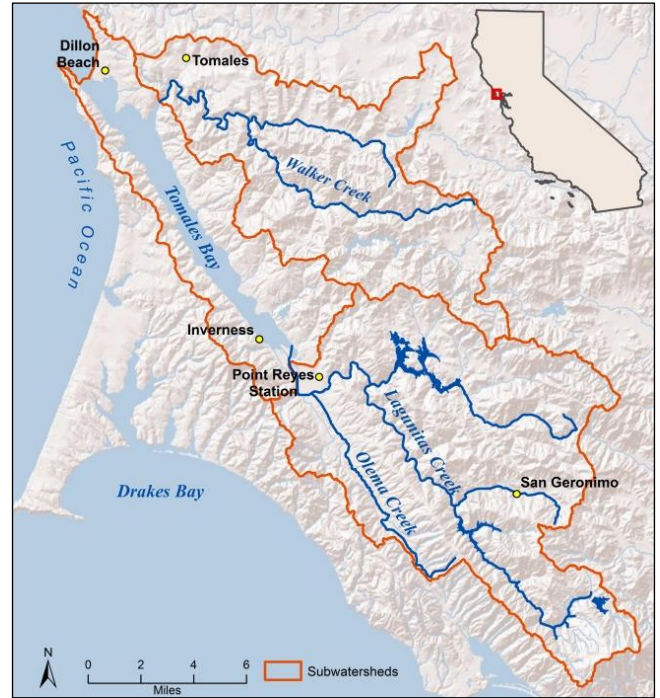
<sup>a</sup> Most Probable Number.

<sup>b</sup> Based on a minimum of five consecutive samples equally spaced over a 30-day period.



<sup>c</sup> Dry weather is any day with less than 0.4" of rain

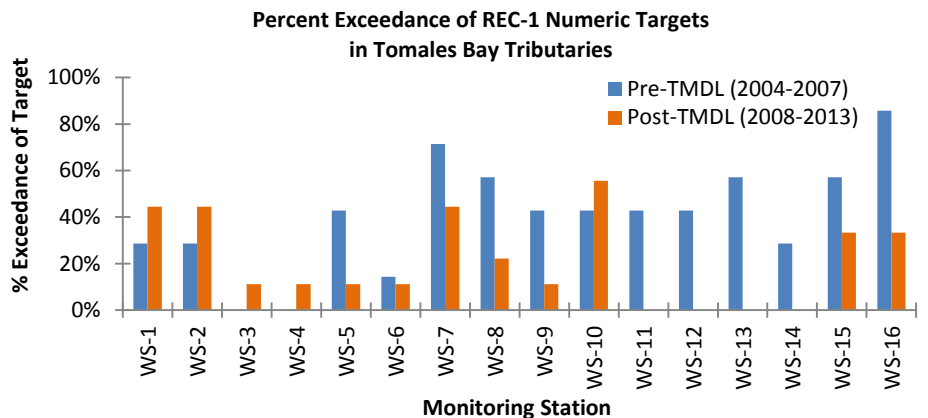
### Tomales Bay Watershed



### Water Quality Outcomes

- Water quality data show fecal coliform concentrations are consistently meeting water quality objectives for SHELL during dry weather periods.
- Water quality data show the degree of exceedance of the REC-1 TMDL targets has been greatly reduced; however, exceedances are still common at most monitoring stations.
- Water quality data show some improvement in water quality. However, additional monitoring is needed to assess water quality trends, such as wet weather SHELL beneficial use.
- Additional water quality improvement is needed to achieve TMDL REC-1 water quality objectives in the tributaries.

### Tomales Bay Water Quality



Updated September 2013