

Water Quality Report Card		Pathogens in the Napa River Watershed		
<b>Regional Water Board:</b>	San Francisco Bay, Region 2	<b>STATUS</b>	<input type="checkbox"/> Conditions Improving <input type="checkbox"/> Data Inconclusive <input checked="" type="checkbox"/> Improvement Needed <input type="checkbox"/> Targets Achieved/Water Body Delisted	
<b>Beneficial Uses Affected:</b>	REC-1, REC-2		<b>Pollutant Type:</b>	<input checked="" type="checkbox"/> Point Source <input checked="" type="checkbox"/> Nonpoint Source <input type="checkbox"/> Legacy
<b>Implemented Through:</b>	NPDES Permits, CAF WDR, Grazing WDR, Sanitary Sewer Overflow, Stormwater Phase II Permit, OWTS	<b>Pollutant Source:</b>	Municipal wastewater treatment discharge	Onsite wastewater treatment systems
<b>Effective Date:</b>	December 6, 2007		Sanitary sewer lines	Confined animal facilities
<b>Attainment Date:</b>	N/A		Grazing	Urban storm runoff

### Water Quality Improvement Strategy

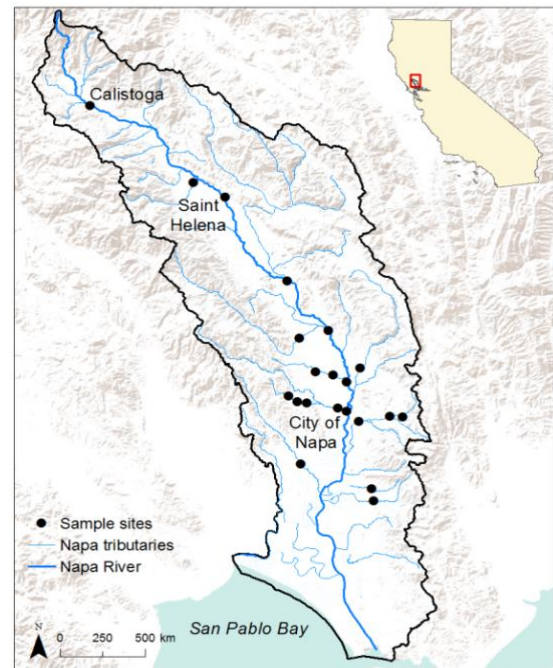
The Napa River Watershed is located in the California Coast Range to the north of San Francisco Bay. In 2006, the San Francisco Bay Regional Water Board adopted the [Napa River Pathogen TMDL](#) to address pathogen impairments in the watershed. The primary sources of pathogens identified in the TMDL included septic systems, municipal stormwater runoff, sewer discharge, grazing, and Confined Animal Facilities (CAFs). Multiple actions have been taken to implement the TMDL including: 1) adopting the statewide Onsite Wastewater Treatment Systems (OWTS) Policy to reduce pathogens from septic systems; 2) adopting statewide Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems in 2006; 3) incorporating TMDL loads into the small municipal stormwater NPDES permit to regulate urban runoff; 4) adopting the Confined Animal Facility (CAF) WDRs in 2016; and 5) adopting the Grazing Operations WDRs in the Napa and Sonoma Watersheds in 2011.

Future implementation actions include reissuance of Grazing WDRs, approval of the Napa County OWTS management plan, regulation of horse boarding facilities and other CAFs, and continued monitoring.

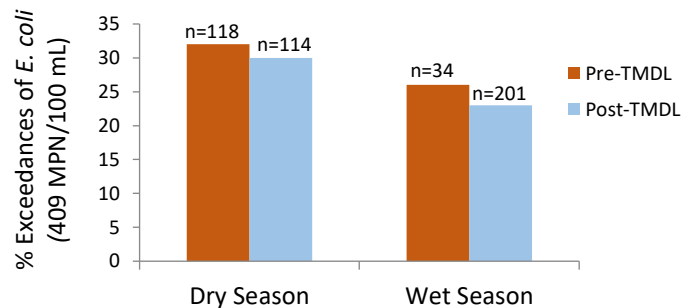
### Water Quality Outcomes

- *Water quality data (top graph) did not show significant differences in exceedances of the single sample maximum E. coli TMDL target (409 MPN/100) in samples collected pre- and post-TMDL implementation. This suggests that pathogen conditions have not improved in the watershed when considering all of the sample sites.*
- *Water quality improvements include decreases in exceedances during the summer dry season along the mainstem of the Napa River (bottom graph), where the most recreation occurs.*
- *Increases in exceedances along the mainstem of the Napa River (bottom graph) during post-TMDL wet season resulted from increased runoff during heavy rain events in winter and spring of 2017.*

### Napa River Watershed



**% Exceedances of E. coli for all Napa River and tributary sites**



**% Exceedances of E. coli for Napa River mainstem sites**

