

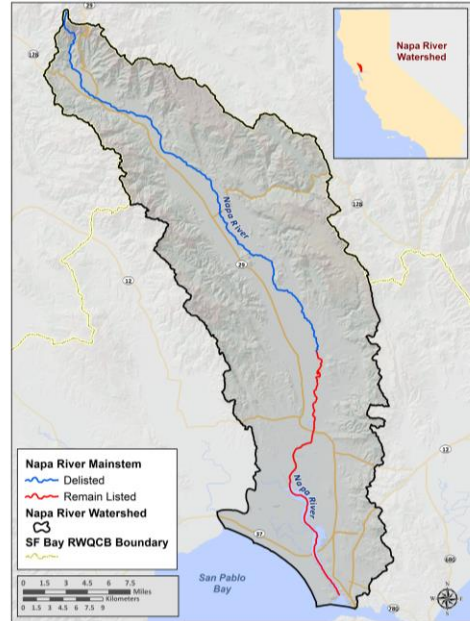
Water Quality Report Card	
Regional Water Board:	San Francisco Bay, Region 2
Beneficial Uses Affected:	REC-1, REC-2, COLD, WARM, AGR, MUN
Implemented Through:	319 Grant, NPDES Permit, Waiver of WDR, WDR
Effective Date:	February 12, 2014
Attainment Date:	2014

Nutrients in Napa River	
STATUS	<input type="checkbox"/> Conditions Improving
	<input type="checkbox"/> Data Inconclusive
	<input type="checkbox"/> Improvement Needed
	<input checked="" type="checkbox"/> Targets Achieved/Waterbody Delisted
Pollutant Type:	<input checked="" type="checkbox"/> Point Source <input checked="" type="checkbox"/> Nonpoint Source <input type="checkbox"/> Legacy

Water Quality Improvement Strategy

The Napa River Watershed is located north of, and drains into, San Francisco Bay. The river was deemed to be impaired by nutrients in the 1975 Regional Basin Plan. High levels of nutrients (nitrogen and phosphorous) can be toxic to humans or wildlife, and can cause eutrophication, a condition of excessive algal growth associated with dissolved oxygen and pH conditions harmful to fish, other aquatic life, and wildlife. The primary, historical sources of these nutrients included wastewater treatment plants, confined cattle facilities, grazing animals, and agriculture. Since the 1970s, Region 2 has implemented point and nonpoint source control measures to reduce nutrient loads in the Napa River. To evaluate whether these measures had been successful, or if a TMDL was necessary, Region 2 monitored water quality between 2002 and 2012, and assessed multiple nutrient water quality indicators using a weight-of-evidence approach. The analysis demonstrated that the non-tidal portion of the river is no longer impaired by nutrients. Therefore, in February 2014, Region 2 recommended that 36 miles of the non-tidal portion of the river be removed from the 303(d) list for nutrients.

Napa River Watershed



Water Quality Condition Summary, 2011-2012

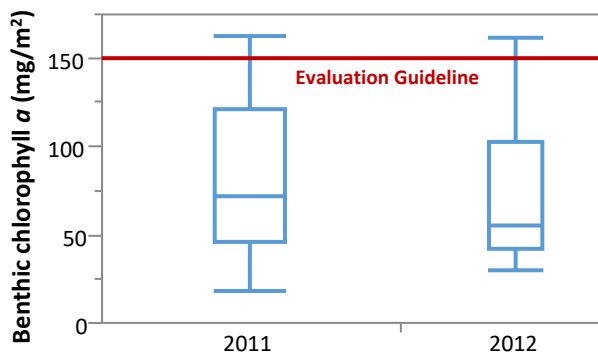
Analyte	Numeric Evaluation Guideline	Number of Exceedances
Benthic biomass chlorophyll <i>a</i>	< 150 mg/m ²	2/16
Percent macroalgae cover	30%	2/17
Water column chlorophyll <i>a</i>	15 µg/L	1/40
pH	6.5-8.5 units	0/27
Nitrite	1 mg/L	0/120
Nitrite + Nitrate	10 mg/L	0/120
Un-ionized ammonia	0.025 mg/L	0/6
Total ammonia	0.1-2.8 mg/L	0/120

Data are available on the Region 2 [website](#).

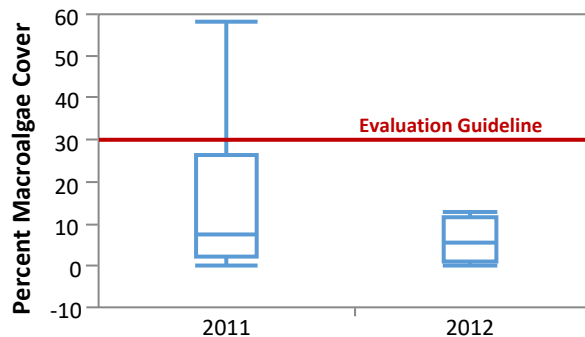
Water Quality Outcomes

- The nutrient listings for 36 miles of the non-tidal portion of Napa River have been removed from the 303(d) list.
- Monitoring data show that benthic chlorophyll *a* and percent macroalgae cover (the best direct indicators of eutrophication in streams) consistently achieve their respective evaluation guideline.
- NPDES permit dry season discharge prohibitions, and increased water recycling, for on-site irrigation or agricultural users have reduced wastewater nutrient loads.
- A reduction in grazed rangeland and confined animal facilities, and conversion to other less nutrient intense land uses, was followed by improved management at remaining properties.
- Waivers of WDR and restoration efforts will continue to reduce nutrient loads and improve riparian habitat in the watershed.

Napa River Water Quality, 2011-2012



Data are available on the Region 2 [website](#).



Box plots represent the 25th to 75th percentiles, and the whiskers represent the 10th and 90th percentiles. The line in the middle of the box shows the median observed value.