

Water Quality Report Card	
Regional Water Board:	San Francisco Bay, Region 2
Beneficial Uses Affected:	COMM, RARE and WILD
Implemented Through:	Wastewater and Storm Water NPDES permits
Effective Date:	February 2008
Attainment Date:	2028

Mercury in San Francisco Bay	
STATUS	<input type="checkbox"/> Conditions Improving
	<input type="checkbox"/> Data Inconclusive
	<input checked="" type="checkbox"/> Improvement Needed
	<input type="checkbox"/> Targets Achieved/Water Body Delisted
Pollutant Type:	<input checked="" type="checkbox"/> Point Source <input checked="" type="checkbox"/> Nonpoint Source <input checked="" type="checkbox"/> Legacy

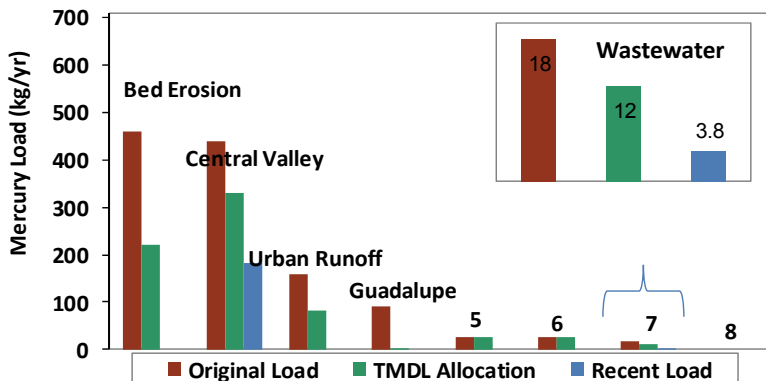
Water Quality Improvement Strategy

The San Francisco Bay-Delta Estuary is the largest estuary on the west coasts of North and South America. Within the Bay-Delta Estuary, the [San Francisco \(SF\) Bay Mercury TMDL](#) addresses all 11 segments of the San Francisco Bay impaired by mercury. The primary source of mercury within the watershed stems from legacy mining (due to storm water runoff from historic mines) in upstream watersheds. Other sources of mercury include urban storm water runoff, wastewater discharges, and atmospheric deposition. Due to mercury contaminated fish and shellfish species, [fish consumption advisories](#) have been created for fish and shellfish caught within the SF Bay. The SF Bay Mercury TMDL assigns mercury load reductions to legacy sources within the SF Bay Watershed, and the [Guadalupe River Watershed Mercury TMDL](#) implements the SF Bay Mercury TMDL load reductions for legacy sources located in an upstream, mining-impacted watershed. The SF Bay Mercury TMDL also assigns mercury load reductions to other sources, including urban storm water runoff, and wastewater.

San Francisco Bay Watershed

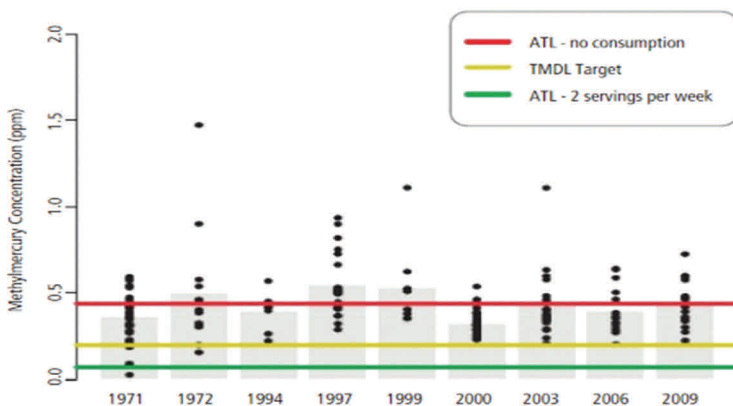


Mercury Loading to San Francisco Bay



Numbered source categories: 5 = Atmospheric Deposition; 6 = Rural Runoff
7 = Municipal and Industrial Wastewater; 8 = Dredging

Fish Tissue Mercury Concentrations in San Francisco Bay



Methylmercury concentrations (ppm) in striped bass from San Francisco Bay, 1971-2009

ATL in the chart refers to Advisory Tissue Levels for [fish consumption](#). Source: [SFEI 2012 RMP](#)

Water Quality Outcomes

- Municipal wastewater discharged approximately 3.9 kg mercury/year during the first 5-year permit cycle, less than half the final wasteload allocation of 11 kg mercury/year.
- In 2012, industrial wastewater discharged about 0.62 kg mercury, well below the final wasteload allocation of 1.0 kg mercury/year.
- [Recent revisions](#) by the San Francisco Estuary Institute (SFEI) to estimate loads from the Central Valley indicate this source, too, is well below its allocation.
- No change has occurred in methylmercury concentrations in striped bass tissue over the past 40 years (figure 1). Striped bass methylmercury concentrations need to decrease by approximately 50% to reach the TMDL target of 0.2 ppm. The [Regional Monitoring Program](#) measures mercury (and many other contaminants) in water, sediment, and fish tissue collected at several locations around the Bay each year.
- Current storm water loading is meeting the interim wasteload allocation of 120 kg/yr. A variety of mercury control measures are being pilot-tested to assess their effectiveness in reducing mercury loads.