Water Quality Report Card

Dissolved Oxygen and Microcystin in Klamath River

Regional Water Board:	**North Coast, Region 1**
Beneficial Uses Affected:	COLD, COMM, CUL, FISH, MIGR, RARE, REC-1, REC-2, SPWN
Implemented Through:	Dissolved Oxygen, Nutrients, Microcystin TMDL
Effective Date:	**2010**
Attainment Date:	**N/A**

STATUS Improvement Needed

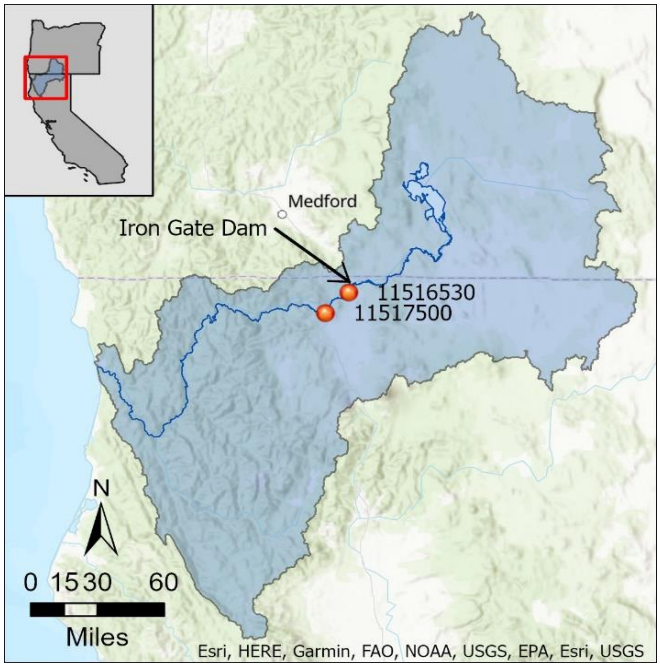
Pollutant Type: Point Source Nonpoint Source Legacy

Pollutant Source: Erosion/Siltation, Grazing, Hydromodification, Irrigated Crop Production, Logging, Naturally Occurring, Riparian Vegetation Removal, Non-point Source Runoff

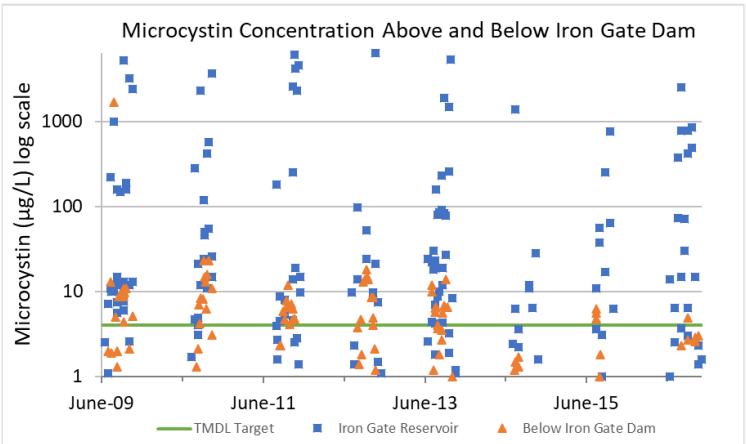
Water Quality Improvement Strategy

The Klamath River is the main stem of the 12,680 mi^2 Klamath River basin. Originating in Oregon, the river flows through northern California and drains into the Pacific Ocean at Requa, CA. Klamath River TMDLs set water quality objectives for dissolved oxygen (DO), nutrients, and microcystin. Increased nutrient loads, high surface water temperatures, altered flow regimes, and degraded channel conditions culminate in adverse biostimulatory conditions that result in low DO and increased concentrations of the cyanobacterial toxin, microcystin. Land use practices and the presence of dams worsen biostimulatory conditions and create optimal conditions for nuisance cyanobacteria blooms within the reservoirs and discharge of microcystin-impaired waters downstream. Low DO and high levels of microcystin decrease the quality and quantity of suitable habitat for fish and aquatic life and disrupts traditional cultural uses of the river by resident Tribes. Microcystin concentrations measured by the Karuk Tribe and PacifiCorp between 2009 - 2016 at and directly below Iron Gate Reservoir are described in the Water Quality Outcomes graph. Biostimulatory conditions persist downstream of the reservoirs. The Water Quality Control Plan for the North Coast Region (Basin Plan) establishes a daily minimum objective for the cold freshwater habitat (COLD) beneficial use of 6.0 mg/L. Measurements made by the Karuk Tribe, presented in the Water Quality graph, show DO levels below this threshold at two stations directly downstream of Iron Gate Dam, further reinforcing the evidence of continued biostimulatory impairment of the Klamath River.

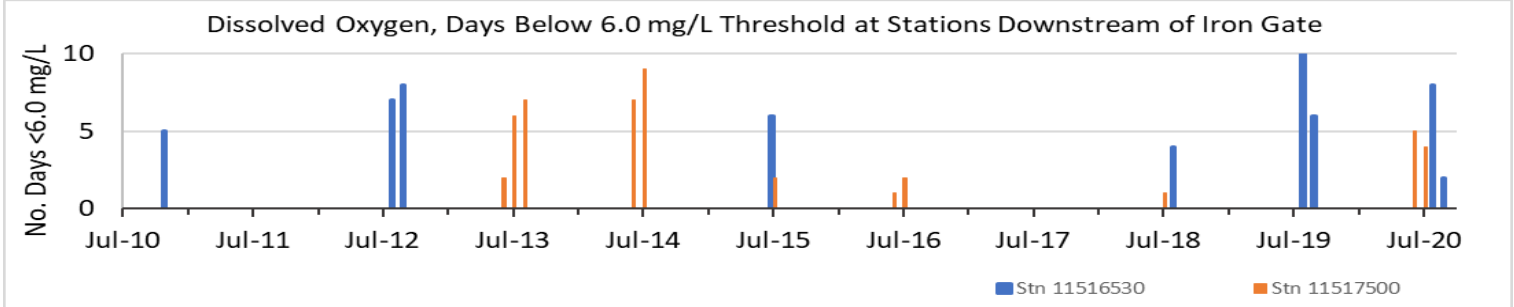
Klamath River Basin Map



Water Quality Outcomes



Water Quality



Released September 2021