

Water Quality Report Card		Phosphorus in the Klamath River Watershed		
Regional Water Board:	North Coast, Region 1	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	
Beneficial Uses Affected:	COLD, RARE, MIGR, SPWN, COMM, CUL, FISH, REC-1, REC-2		Pollutant Type:	<input type="checkbox"/> Point Source <input checked="" type="checkbox"/> Nonpoint Source <input checked="" type="checkbox"/> Legacy
Implemented Through:	Restoration, NPS Permits, Coordination Efforts	Pollutant Source:	Grazing	Irrigated Crop Production
Effective Date:	December 28, 2010 (TMDL)		Hydromodification	Naturally Occurring
Attainment Date:	2050		Logging	Roads

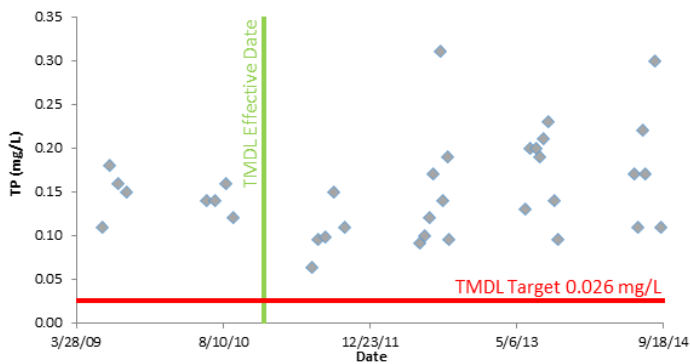
Water Quality Improvement Strategy

The Klamath River begins in southwest Oregon and flows into northern California where it drains into the Pacific Ocean. The [Klamath River TMDL](#) became effective in 2010 and addresses phosphorus impairments in the Klamath River Watershed. In addition, the [Oregon Department of Environmental Quality](#) developed TMDLs to address phosphorus for Upper Klamath Lake and the Upper Klamath River in the Oregon part of the watershed. High phosphorus levels contribute to nutrient impairments, algal blooms, and low dissolved oxygen levels in the Klamath River Watershed, which adversely impact salmonids. While water quality improves as the Klamath River flows downstream, the hyper-eutrophic Upper Klamath Lake, located in Oregon, is the primary source of phosphorus in the watershed. Additionally, conversion of wetland habitat to agricultural land and internal nutrient cycling contribute phosphorus to the watershed. TMDL implementation actions include wetland and riparian habitat restoration, interim pilot water quality projects associated with dam removal, and nonpoint source permits for agriculture, silviculture, and grazing discharges.

Klamath River Watershed



Total Phosphorus (TP) at California – Oregon Border



Water Quality Outcomes

- Data collected by Klamath Tribes, the Yurok Tribe, and PacifiCorp show that phosphorus concentrations tend to peak during the summer months and continue to exceed monthly mean total phosphorus TMDL allocations.
- Over 50 organizations participate in the [Klamath Basin Monitoring Program](#) to implement, coordinate, and collaborate on water quality monitoring and research.
- The [Klamath Tracking and Accounting Program](#) is beginning to track on-the-ground conservation and restoration projects, and quantify ecosystem benefits.
- In September 2012, a team of technical experts developed and evaluated approaches to reduce nutrients in the watershed. [Their report](#) recommends wetland rehabilitation, sediment removal, and sediment sequestration with aeration.
- Construction of three to five pilot diffuse-source treatment wetlands (each a small-scale system of wetlands dispersed throughout the landscape) will be constructed in the Upper Klamath River Basin by 2019.
- The removal of Iron Gate, Copco 1 & 2, and JC Boyle dams is planned for 2020. The removal of these impoundments will restore a more natural flow regime, reduce nutrient build-up, and improve water quality conditions for salmonids.

Total Phosphorus (TP) June to September (2009-2014)



*UKL data are only from 2009-2012.

Monitoring Site