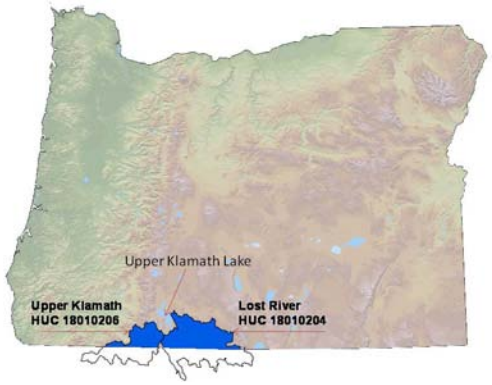
Fact Sheet

Upper Klamath and Lost River: Draft Water Quality Improvement Plans

Several stream segments of the Upper Klamath and Lost River subbasins do not meet state water quality standards for dissolved oxygen, pH, ammonia toxicity, algae and temperature.



Upper Klamath and Lost River subbasins.

The water quality problems in the Upper Klamath subbasin are caused by an over abundance of phosphorus, nitrogen and biochemical oxygen demand and overly warm temperatures. DEQ has also identified three pollutants for the Lost River subbasin: dissolved inorganic nitrogen, carbonaceous biochemical oxygen demand and temperature.

This fact sheet summarizes DEQ's upcoming plans to reduce pollution and address temperature levels in the Upper Klamath and Lost River subbasins. The plans are designed to ensure that the streams are healthy for fish and wildlife, and safe for fishing and swimming.

The federal Clean Water Act requires DEQ to develop plans with goals and pollution control targets for improving water quality in these stream segments. DEQ is doing this by establishing limits known as Total Maximum Daily Loads (TMDLs) for each pollutant entering the water system.

A TMDL evaluation uses scientific data collection and analysis to determine the amount and source of each pollutant entering the river system, and allocates pollutant loads to each source at levels that would ultimately restore water quality to clean water standards. A "pollution load" is the amount of each pollutant a waterway can receive and not violate water quality standards. A TMDL takes into account the pollution from all sources.

The Upper Klamath and Lost River subbasins are within the Klamath basin. DEQ completed TMDLs for temperature, dissolved oxygen and pH for the Upper Klamath Lake drainage, including the Sprague, Williamson and Upper Klamath Lake subbasins, in 2002.

Oregon – California TMDL Process

Oregon DEQ and the California North Coast Regional Water Quality Control Board (NCRWQCB) are working cooperatively to develop TMDLs for the impaired waterbodies in the Klamath Basin. Given the interstate nature of these water bodies, NCRWQCB and DEQ with the support of the U.S. Environmental Protection Agency (EPA), have agreed to jointly develop TMDLs for both the Lower Lost River and Klamath River. The states and EPA have signed a Memorandum of Agreement outlining roles, responsibilities, and communication processes for completing the TMDLs.

Klamath River TMDLs

The Klamath River TMDL analysis included impoundments and stream sections of the Klamath River from the outlet of Upper Klamath Lake to the State border with California. Pollutants responsible for water quality impairments included phosphorus, nitrogen, biochemical oxygen demand and temperature.

The analysis indicates that water quality standards for Oregon waterbodies and California's water quality standards at the state line can be attained when phosphorus, nitrogen and biochemical oxygen demand loading from point and nonpoint sources are reduced. Additionally, dissolved oxygen augmentation is required in two impounded reaches in order to achieve water quality standards. The temperature TMDL for the Klamath River targets natural thermal potential while adopting the current temperature regime of Upper Klamath Lake as a natural condition.

Lost River TMDLs

The analysis included waterbodies in the impounded and stream sections of the Lost River from the Oregon-California state line downstream of the Malone Dam to the state line upstream of Tule Lake and the Klamath Straits Drain from the state line to the confluence with the Klamath River.

State of Oregon
Department of Environmental Quality

Water Quality Division
Eastern Region - Bend
475 NE Bellevue Drive
Suite 110
Bend, OR 97701-7415
Phone: (541) 633-2023
(866) 863-6668
Fax: (541) 388-8283
Contact: Steve Kirk
www.oregon.gov/DEQ

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By: Steve.Kirk
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Criteria for meeting the dissolved oxygen standard are the most stringent. Computer modeling indicates that if the dissolved oxygen criteria are met in the system, then the other water quality criteria will also be attained.

Dissolved inorganic nitrogen and carbonaceous biochemical oxygen demand reductions are necessary to attain the dissolved oxygen, pH, and ammonia toxicity standards. The Lost River TMDLs ensure that the water that flows downstream across the state line into California meets California's dissolved oxygen standard.

Temperature TMDL for Lost River and Klamath River tributaries

The analysis included temperature impaired tributaries to the Lost River and Klamath River. Human caused temperature increases are associated with excessive thermal inputs of solar radiation due to the removal or reduction in stream side vegetation. Reservoirs, irrigation districts and dam operations are considered nonpoint sources that influence the quantity and timing of heat delivery to downstream river reaches. There are no permitted point sources expected to contribute significant heat to the Lost River or Klamath River tributaries.

Water quality management plan

The TMDL report includes a Water Quality Management Plan that identifies strategies and approaches for accomplishing water quality improvements. The plan identifies local, state and federal government or private entities with responsibility for addressing pollution under their control. These entities are often referred to as "designated management agencies." The plan also proposes management strategies designed to meet the allocations in the TMDLs and establishes a schedule for the submission of implementation plans.

Public process and participation

There are numerous opportunities for stakeholder participation in TMDL development and implementation. DEQ distributes information to the public by direct mailing to interested parties and by posting on the Klamath Basin TMDL web page at:
www.deq.state.or.us/wq/tmdls/klamath.htm.

DEQ will also host meetings with focus groups to provide information about the TMDL development process and approach, to understand stakeholder concerns and respond to questions.

To be placed on the mailing list or have questions addressed regarding the TMDL process, public process, stakeholder list, and information posted on the Klamath Basin web page, please contact Steve Kirk, Basin Coordinator, at (541) 633-2023, or by email: kirk.steve@deq.state.or.us.

Alternative formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.