

Bear Creek Watershed TMDLs

What is a Total Maximum Daily Load?

Many waterbodies in Oregon do not meet all water quality standards including over 311 miles of creeks in the Bear Creek Watershed. Bacteria, temperature, and sedimentation are currently identified as problems for Bear Creek and its tributaries. When waterbodies do not meet water quality standards, they are classified as *impaired* on the 303(d) list. The 303(d) list, named after the section of the federal Clean Water Act, is a state list of all impaired waters. When rivers or streams are listed, DEQ is required to develop total maximum daily load (TMDL) which defines how much of a pollutant a waterbody can receive and still meet water quality standards.



Bear Creek Watershed TMDL Area

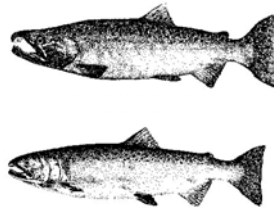
Background

Bear Creek currently has a TMDL in place. Approved by USEPA on December 12, 1992 it was among the first TMDLs in the State of Oregon. The TMDL addresses the non-attainment of pH, aquatic weeds and algae, and dissolved oxygen (DO) standards. To address the standards the TMDL established instream concentration targets for total phosphorus, ammonia nitrogen and biochemical oxygen demand. The 1992 TMDL is currently adequate to protect water quality.

The 2007 Bear Creek TMDL deals with the violation of three additional water quality parameters: bacteria, temperature and sedimentation.

Temperature TMDL

DEQ's water quality standards are applied to protect the most sensitive beneficial uses in a waterbody. Numeric criteria in the temperature standard were developed to protect different aspects of the life stages of salmon and trout: spawning, rearing and migration.



*Coho salmon
(Oncorhynchus kisutch)*
Photo Courtesy Washington DFW

For point sources of heat such as wastewater treatment plants, waste load allocations have been developed that will allow increasing the temperature of the receiving stream no more than 0.1°C above the applicable criterion. For nonpoint sources, the load allocation is based on the attainment of maximum shade provided by riparian vegetation under site-potential condition. Tree species and heights were determined by ecoregion, a geographic concept that takes into account climate, soils, slope, elevation and natural vegetation. When point sources achieve their waste load targets, and site potential vegetation is reached, the TMDL will be met and water temperatures will meet standards.

Bacteria TMDLs

High bacteria levels can impact the health of Oregon's citizens who recreate in or near Bear Creek and its tributaries. Water quality will be restored when sources of bacterial pollution reduce their contribution to levels identified in the TMDL. The reductions needed specifically apply to nonpoint sources. Nonpoint source refers to pollution that doesn't come from a pipe, but is carried off the landscape in runoff. Various land uses including urban, rural residential, and agricultural and others are potential sources of nonpoint source bacterial runoff.



State of Oregon
Department of
Environmental
Quality

Western Region
221 Stewart Ave
Suite 201
Medford, OR 97501
Phone: (541) 776-6010
Fax: (541) 776-6262
Contact: Bill Meyers
www.deq.state.or.us

Sedimentation TMDL

In the sedimentation TMDL, the pollutant is sediments that enter into Ashland Creek and deposit into Reeder Reservoir located above the City of Ashland. The sources for these additional sediments include forest management, and road construction and maintenance practices that may destabilize slopes and increase the velocity of runoff. Excessive levels of sediment may result in impaired salmonid habitat or spawning.

Water Quality Management Plan

The Bear Creek Watershed TMDL includes a Water Quality Management Plan designed to identify strategies and approaches for implementing the TMDLs. The WQMP identifies the Designated Management Agencies (local, state and federal government agencies with responsibility for addressing pollution problems), as well as proposed management strategies designed to meet the targets in the TMDLs. It also establishes a schedule for the submission of Implementation Plans, and incorporates action plans already in place.

An agricultural water quality management plan, which addresses stream heating, bacteria and sedimentation from agricultural activities, has been adopted for the watershed. Impacts from forestry activities on private lands will be controlled through the implementation of the measures in the Oregon Forest Practices Act. On federal forestlands the Northwest Forest Plan will serve to protect water quality.

For other land uses implementation plans will be developed by the entity with jurisdiction over the particular land use. These include Jackson County, the cities of Ashland, Talent, Phoenix, Medford, Jacksonville and Central Point as well as the Irrigation Districts: Medford, Talent, and Rogue River Valley. These jurisdictions will identify appropriate limits, best management

practices, measures and approaches to best meet the TMDL

Public Process

The draft Bear Creek Watershed TMDL has been developed over the course of many years and has included participation by city and county staff at various levels, the Bear Creek Watershed Council and others. Comments and recommendations made by these groups during the development process have been incorporated into this TMDL.

The Bear Creek Watershed TMDL is now entering a formal public comment period from January 8 through March 9, 2007. An informational session to present TMDL background and overview will be provided preceding a public hearing on February 20, 2007. This meeting will be held at the Community Justice Center at 6 PM. The center is located at 1101 West Main Street, Medford.

Copies of the TMDL document are available at several locations including the Jackson County libraries in Medford, Ashland, and Jacksonville, the Medford and Portland DEQ offices, and on the internet at <http://www.deq.state.or.us/WQ/TMDLs/Rogue.htm>

Additional Information

For more information about the Bear Creek Watershed TMDLs, or to request a presentation for your group, please contact Bill Meyers 541-776-6010 extension 253 or by email at Meyers.bill@deq.state.or.us

Alternative Formats

Alternative formats of this document can be made available. Contact DEQ Public Affairs for more information (503) 229-5696.