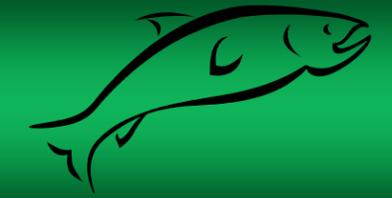


TMDL Implementation Plan



A Total Maximum Daily Load (TMDL) is a quantitative assessment of a water body which defines the maximum amount of a pollutant that the water body can receive and still meet water quality standards. A TMDL Implementation Plan is a written document prepared by a Designated Management Agency which describes the Best Management Practices the agency must implement to control the discharge of pollutants to impaired water bodies. The City of Keizer follows a TMDL Implementation Plan associated with the Willamette Basin.

Background

Section 303(d) of the Clean Water Act (CWA) dictates that every two years, states must prepare a list of waters that do not meet water quality standards for uses such as swimming and fishing. They must also identify the pollutants responsible for the impairment. They must then prioritize the development of TMDLs for those waterways depending on factors such as the severity of the impairment. Proposed TMDLs must be approved by the U.S. Environmental Protection Agency (EPA).

In Oregon, the Department of Environmental Quality (DEQ) is responsible for compiling information regarding impaired water bodies and submitting the information to the EPA. One such impaired water body is the Willamette River. The Willamette Basin TMDL, which includes the Willamette River and other impaired stream segments in the basin, was submitted and approved in 2006. The DEQ developed a Water Quality Management Plan (WQMP) which documents the ways in which the DEQ and other Designated Management Agencies (DMAs) must implement the TMDL to protect water quality.

The City of Keizer is a DMA for the Willamette River. As a DMA, the City of Keizer has authority over the sources of pollution entering the Willamette River. Those sources include Labish Ditch and Claggett Creek, which are tributaries of the Willamette River, as well as stormwater discharges and overland flow. The City must implement Best Management Practices (BMPs) to control pollution in these sources according to the City's TMDL Implementation Plan. Annual reporting to the DEQ on the progress of the TMDL Implementation Plan is required.

Specifics of Middle Willamette Subbasin TMDL

The pollutants of concern for the portion of the Willamette Basin TMDL for which the City of Keizer is a DMA are *bacteria*, *mercury*, and *temperature*. The City strives to reduce these pollutants through a combination of public outreach, enforcement, and internal practices and projects.

Pollutants of Concern

Bacteria:

Elevated levels of bacteria can make recreational activities such as swimming unsafe. Bacteria contamination may be linked to animal waste from farming activities, unnatural concentrations of water fowl and other wildlife, and domestic pets.

Mercury:

Mercury is a toxic heavy metal. Bioaccumulation of mercury in fish tissue can lead to fish consumption limits due to health hazards associated with consuming mercury. Waterways can become contaminated when soils that naturally contain mercury are eroded.

Temperature:

Temperature drastically impacts the feeding, reproduction, and survival of aquatic wildlife. Water warmer than 64°F will not support salmon species. Turbidity and too much direct sunlight contribute to high water temperature.

Keizer's TMDL Implementation Plan

The City of Keizer's TMDL Implementation Plan was approved by the Department of Environmental Quality (DEQ) in 2008. It runs concurrently with Keizer's NPDES Stormwater Management Plan. It includes measures that address bacteria, mercury, and temperature in the Keizer portions of the Willamette River and its tributaries. The following Best Management Practices (BMPs) are highlights of the plan.

Programs to educate and motivate the public to clean up after pets

Creation of public education and outreach materials including signage, brochures, mailings, resource lists, and website material

Guided nature hike as part of educational field trip program at Keizer Rapids Park (to educate the students about water pollution and promote stewardship)

Development of ordinances to control runoff to waterways

Annual catchbasin cleaning

Street sweeping (this is a contracted service)

Planting of native shrubs and trees along waterways

Promoting the retention of native vegetation

Good Housekeeping program for field staff

Erosion Control program private development and City projects

[Link to Keizer's TMDL Implementation Plan](#)



Note: The information above pertains to Keizer's TMDL Implementation Plan. Please see [NPDES Permit](#) or [WPCF Permit](#) for information on other activities.