

## Ecology Guidance: How to Use the Wetland Atlas

To answer YES for a TMDL in the basin, the wetland you are rating should be within the contributing basin to the TMDL study area. That means that the wetland occurs within or upgradient of the TMDL study area.

To find the TMDL study area:

Go to the Water Quality Atlas[1] map and use the Add/Remove Map Data feature to select WQ Improvement Projects for display. If the wetland being rated is located in a basin highlighted as "Approved" or "In Development," click on the highlighted polygon and go to the report link for the TMDL.

Look in the report for the TMDL study area to determine if the wetland being rated is within the contributing area to the TMDL study area. Note that multiple TMDLs may apply to a given area.

If the basin in which the wetland is found has a Total Maximum Daily Loads (TMDL) plan (also called a Water Cleanup Plan or Water Quality Improvement Project) developed for it, then you should answer YES for this question. It is assumed that all wetlands are valuable in a basin where water quality is poor enough to require a TMDL. The Department of Ecology's Water Quality improvement projects[2] website lists all the bodies of water that have TMDLs.

For wetlands in the contributing basin to areas with a TMDL "in development," you would also answer YES.

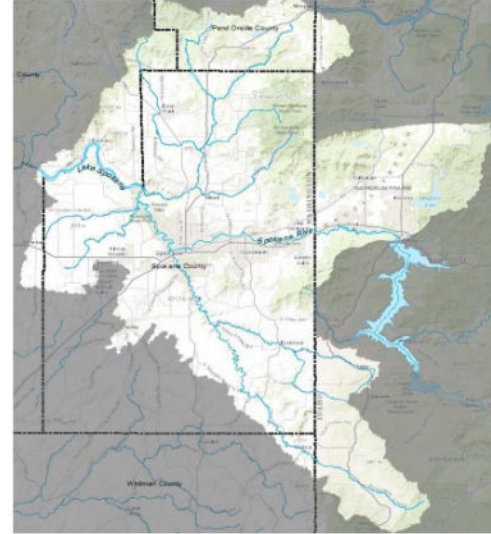


Figure 1. The Spokane River watershed covered by the dissolved oxygen TMDL

Figure 2 shows an improving trend in minimum volume-weighted dissolved oxygen levels in the hypolimnion, or the deepest parts of the lake from 1972 through 2016, despite significant population growth in the study area. Several actions described in the following pages likely contributed to the recent improvement shown in the graph, such as banning phosphorus in detergents and fertilizer, applying chemical enhanced primary treatment, optimizing manufacturing processes, and operation of a new wastewater treatment plant. The graph shows we are on the correct path toward improving dissolved oxygen in the Spokane River and Lake Spokane, but we need to ensure activities continue in order to achieve water quality standards.

Within the next five years, entities discharging to the river in Washington will complete the installation of additional equipment to significantly lower nutrients in their discharges. Ecology also expects practices that reduce nutrients from nonpoint sources will be more widespread by 2020. In addition, dischargers in Idaho are expected to complete upgrades to lower nutrients

### TMDL Area Map from "Spokane River and Lake Spokane Dissolved Oxygen TMDL 2010-2104 Implementation Report"

Below: Deep Creek is a named tributary in the "Spokane River and Lake Spokane Dissolved Oxygen TMDL 2010-2104 Implementation Report"

A screenshot of a PDF viewer displaying the 'Tributary TMDLs' section of the 'Spokane River and Lake Spokane Dissolved Oxygen TMDL: 2010-2104 Implementation Report'. The document is viewed at 75% zoom. The left sidebar shows a table of contents with page numbers 21 through 25. The main content area shows the following text:  

### Tributary TMDLs

The Spokane River and Lake Spokane TMDL established load allocations at the mouths of the three tributaries: Hangman Creek, Deep Creek, and the Little Spokane River. As a result, Ecology must develop water quality improvement plans (also called Total Maximum Daily Loads or TMDLs) in order to divide the nutrient allocations from the dissolved oxygen TMDL at the tributary mouths among the various nutrient sources located upstream. For Deep Creek, more study is needed to understand the nutrient contributions since little water quality data are available, but Ecology has initiated TMDLs on Hangman Creek and the Little Spokane River. Although there are some small point source discharges on these tributaries (mostly on Hangman Creek), the TMDL acknowledges the nutrients come mainly from nonpoint sources of pollution.

Following is a description of where Ecology is in the process to develop nutrient TMDLs on Hangman Creek and the Little Spokane River. In addition, general information is provided on what is being done to implement TMDLs for other water quality parameters. Additional information on implementation activities is discussed in the nonpoint source section of this document.

#### Hangman Creek / Latah Creek

**2010-2014**  
The Environmental Protection Agency (EPA) approved the Hangman Creek TMDL for fecal coliform bacteria, temperature, and turbidity impairments in September 2009. An implementation plan followed in May 2011. Several implementation projects by the Spokane Conservation District, The Lands Council, the City of Spokane, the Coeur d'Alene Tribe, and the Washington Department of Transportation to reduce pollution from nonpoint sources have been completed or are underway. Many of these projects will also reduce nutrients that contribute to dissolved oxygen and pH impairments.

The dissolved oxygen and pH TMDL is currently on hold while Ecology works on water quality standards policy issues related to stagnant and intermittent flow conditions, which are in part a natural phenomenon in the watershed. The goal of the policy work is to better align the water quality standards with the modeled natural conditions to reflect conditions present prior to human influence in the watershed. This effort has been further complicated by litigation filed in 2014 that challenges EPA's approval of provisions to incorporate natural conditions in the application of water quality criteria.

**2015-2016 Update**  
During 2015 and 2016 Ecology continued to work on potential pathways to reconcile the disparity between the numeric water quality criteria and the naturally attainable water quality condition in Hangman Creek watershed. Ecology also consulted with EPA regarding potential outcomes of the litigation and how it could affect the completion of this and other TMDLs. During this same timeframe, Ecology focused efforts on assessing nonpoint sources in the watershed and implementation of best management practices to address these sources. TMDL development resources were focused on completing the Little Spokane dissolved oxygen and pH TMDL.