



# Total Maximum Daily Loads for the Willamette Subbasins

Technical Support Document  
Appendix H: Interactive TMDL Map

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The Oregon Department of Environmental Quality [prepared a geodatabase](#) containing Geographic Information System layers relevant to the Willamette Subbasins. The GIS layers summarize various model extents, shade data, data monitoring sites, and point source discharge locations. The geodatabase will be available to the public and distributed with the Total Maximum Daily Load documents. These layers can also be viewed on an interactive HTML map on the DEQ website.

The interactive map contains additional layers not found in the geodatabase, including assessment units within the TMDL project area listed as impaired for temperature on Oregon's 2022 Integrated Report. It also features layers depicting designated fish uses and applicable criteria as well as salmon and steelhead spawning use designations. The fish and spawning use designations are intended to be as accurate as possible, however some errors may exist. In addition, the Oregon Environmental Quality Commission has approved and DEQ has submitted to the Environmental Protection Agency updates to the fish and aquatic life use designations. As of August 2024, EPA has not taken action on these updates. If approved, these updates will change the applicable temperature criteria for some AUs. In the case of any discrepancy, the applicable temperature criteria and geographic extent described in rule at OAR-340-041 shall take precedence.

The geodatabase contains the following GIS features and location information:

1. TMDL project area boundary.
2. AUs located within the scope of the TMDL project area.
3. The shade gap associated with each calibrated shade model node.
4. The mean shade gap associated with each AU.
5. The extent of calibrated models used to determine site-specific effective shade surrogate measure targets.
6. The extent of mapping units used to determine effective shade curve surrogate measures.
7. The extent of the CE-QUAL-W2 temperature model.
8. The extent of the Heat Source temperature model.
9. Effective shade measurement collection locations.
10. The locations of stream flow monitoring sites supporting TMDL model development.
11. The locations of stream temperature monitoring sites supporting TMDL model development.
12. The locations of flow boundary conditions and tributary input sites supporting TMDL model development.
13. The locations of temperature boundary conditions and tributary input sites supporting TMDL model development.
14. The locations of continuous stream temperature monitoring sites supporting model calibration.
15. The locations of meteorological data sources.
16. The locations of domestic and industrial individual NPDES-permitted point source discharges.
17. The locations of general NPDES permit registrants.

18. The extent of land ownership and jurisdiction of potential designated management agencies (DMAs) and responsible persons (RPs).
19. Eight-digit hydrologic unit boundaries (HUC8 Subbasins).
20. Ten-digit hydrologic unit boundaries (HUC10 Watersheds).
21. Twelve-digit hydrologic unit boundaries (HUC12 Subwatersheds).
22. 2018 city limit boundaries from Oregon GEOHub.