

Snake River Temperature TMDL

Draft Fiscal Impact Statement

Feb. 4, 2026

Introduction

Consistent with Oregon Revised Statute 468B.110 and Oregon Administrative Rules chapter 340 division 42, DEQ invites input on the proposed draft Total Maximum Daily Load and Water Quality Management Plan fiscal impact statement for the Snake River to address temperature impairments. The TMDL and WQMP will be proposed for adoption by Oregon's Environmental Quality Commission, by reference, into OAR 340-042-0090.

A TMDL, or clean water plan, is a science-based approach to cleaning up polluted water so that it meets state water quality standards. A TMDL is a numerical value that represents the highest amount of a pollutant a surface water body can receive and still meet the standards. A WQMP is the required element of a TMDL describing strategies to achieve allocations identified in the TMDL to attain water quality standards. Responsible persons, including Designated Management Agencies, are required to implement the TMDL and must develop sector-specific or source-specific TMDL implementation plans. Implementation plans include management strategies, timelines for implementation, a schedule for achieving milestones, and a performance monitoring component with a plan for periodic review and plan revisions.

Fee analysis

This rulemaking does not involve fees.

Reason for rulemaking

DEQ will revise multiple temperature TMDLs that were issued by DEQ and approved by the U.S. Environmental Protection Agency between 2004 and 2010. DEQ is under a court order to update and replace these temperature TMDLs to make them consistent with the current temperature standards. These TMDLs must be updated because they were based, in part on the Natural Conditions Criterion, a section of the temperature standard that was subject to litigation and has since been disapproved by EPA. The court order identifies the schedule for EPA approval or disapproval of the replacement TMDLs.

The Snake River Temperature TMDL applies to the entirety of the Snake River, Brownlee Reservoir, Oxbow Reservoir, and Hells Canyon Reservoir within Oregon from approximately river mile 176 at the tri-state border of Oregon, Washington, and Idaho upstream to approximately river mile 409 at the Oregon and Idaho border.

Information about the Temperature TMDL Replacement project and the Snake River project area is online.

- [Temperature TMDL Replacement project](#)
- [Snake River project page](#)

Statement of fiscal and economic impact

Fiscal and economic impact overview

The federal Clean Water Act requires states, or EPA, to develop a TMDL for each water body on the state's polluted waters list, also known as the 303(d) list. The TMDL process is one strategy used to clean up polluted waters. Issuance and subsequent implementation for the proposed TMDL and WQMP may have fiscal or economic impacts on businesses, farms and ranches, forestlands, and federal, state, county, and city lands or operations adjacent to the Snake River. DEQ is not able to quantify costs, but generally the costs of meeting the biologically based water quality criteria for temperature, and associated TMDL allocations may be minimal for those responsible persons, including Designated Management Agencies. New requirements in the WQMP that existing DMAs have not previously implemented may result in additional costs. New DMAs that are required to develop plans will incur costs to develop and implement a plan, and administrative costs associated with reporting on implementation progress.

This fiscal impact statement does not quantify the costs of ongoing water quality impairment to beneficial uses of waters of the state, nor the potential economic or ecosystem service benefits of improving water quality and attaining beneficial uses. Implementation of these TMDLs is intended to address water pollution, as required by the relevant sections of the federal Clean Water Act. The negative economic and ecological impacts of water pollution potentially affect all those who live, work, and recreate within the watershed, as well as those downstream, including commercial, recreational and subsistence fishing communities. The externalized costs of thermal pollution in water may disproportionately negatively affect poor, rural, indigenous and minority communities in Oregon.

Direct economic costs of TMDL implementation associated with load allocations are mostly borne by those entities contributing pollutants to waterways. These entities may reduce their costs by choosing pollutant control or reduction strategies or options that align with their circumstance or business needs and utilizing grant funding opportunities. The potential economic and ecosystem service benefits of improved water quality and beneficial use access may be realized by all those who live, work, and recreate within and downstream of the Snake River Basin.

The Snake River Temperature TMDL applies to individual and general permit holders. The degree to which these permits are affected by this TMDL will depend on whether they can meet waste load allocations for temperature

Statement of cost of compliance

Costs of compliance with this TMDL rule can include implementation and administrative costs. DEQ does not have specific information for potentially affected operations within the watershed to determine economic impacts to landowners, public agencies, or business operators. DEQ expects costs of compliance to vary for one or more of the following reasons:

- Whether the responsible person, including DMAs are already implementing a temperature TMDL, or they are a new DMA.
- Strategies may already be in place in some locations that prevent or reduce exceedances of temperature water quality standards.
- Costs vary to implement different temperature control strategies in the WQMP.
- Multiple temperature pollution controls may be needed at some locations.
- The presence of buildings or transportation infrastructure may preclude the ability to implement temperature control strategies in some locations.
- DEQ does not have information to determine all potential sources or what actions are currently occurring that could be modified or enhanced to prevent exceedances of temperature criteria.
- Temperature load allocations are calculated by source sector, not by individual property or activity.
- A range of organizational capacity and funding exists for implementation plan development and there are varying levels of complexity needed in plans.

Based on data from the Oregon Watershed Restoration Inventory, recent project budgets in the Snake River Basin typically ranged from \$8,000 to \$35,000 per acre for riparian restoration. Projects at the lower end of this range include basic planting, limited fencing and minimal infrastructure. Projects in the middle of this range often include moderate site preparation, invasive species control, fencing, planting, and some engineered features like hardened crossing or livestock watering systems. Projects at the higher end of this range generally include more intensive restoration with high planting densities, complex site conditions, engineered infrastructure, and multi-year maintenance commitments.

The fiscal impact of the new waste load allocations on point source discharge will be variable. In the event the WLA becomes more stringent, the point source may incur additional capital improvement or other costs necessary to achieve compliance with the new WLA.

Where investments are necessary to meet TMDL implementation requirements, DEQ identifies funding resources in the WQMP and online that include, but are not limited to, state and federal grants (including Oregon Watershed Enhancement Board and Clean Water Act Section 319 nonpoint source implementation grants) and below-market interest rate loans (that can include principal forgiveness) through the Clean Water State Revolving Fund program. Other state and federal opportunities are provided on [DEQ's Water Quality Funding Resource web page](#).

- [EPA's funding resources for watershed protection and restoration web page](#)

- [EPA's Clean Water State Revolving Fund Best Practices Guide for Financing Nonpoint Source Solutions](#)

Federal agencies

The proposed rule will have an impact on some federal agencies named as DMAs in the TMDL. Costs by federal agencies for TMDL implementation may be required for compliance with DEQ's federal Clean Water Act requirement to issue a TMDL. Federal agencies will be assigned responsibility for revising existing TMDL implementation plans or for developing a new TMDL implementation plan, as well as associated administrative costs. DEQ does not know the exact costs for reasons described above. The following federal agencies will need to develop or revise a TMDL implementation plan.

U.S. Bureau of Land Management (BLM) is responsible for developing plans for management strategies and implementing practices to achieve nonpoint source pollutant load allocations on forest, range, and other land types managed by the federal government. BLM management areas make up approximately 13.5 percent of the land area adjacent to the Snake River. BLM will likely incur costs to implement temperature-related management strategies, administrative costs for development of a TMDL implementation plan and reporting costs associated with this TMDL. In addition, DEQ is proposing to require the BLM to participate in stream monitoring as part of the Monitoring Strategy described in the WQMP. It is unknown what those costs will be, but potential costs incurred may be alleviated depending on whether existing BLM monitoring sites are compatible with future monitoring needs.

U.S. Forest Service is responsible for developing plans for management strategies and implementing practices to achieve nonpoint source pollutant load allocations on forest and other land types managed by the federal government. USFS management areas make up approximately 32.5 percent of the land area adjacent to the Snake River. The U.S. Forest Service will likely incur costs to implement temperature-related management strategies, administrative costs for development of a TMDL implementation plan and reporting costs associated with this TMDL. In addition, DEQ is proposing to require the U.S. Forest Service to participate in stream monitoring as part of the Monitoring Strategy described in the WQMP. It is unknown what those costs will be, but potential costs incurred may be alleviated depending on whether existing U.S. Forest Service monitoring sites are compatible with future monitoring needs.

State agencies

Under the proposed rule, some state agencies will be assigned responsibility for developing TMDL implementation plans and implementing management strategies to achieve cumulative pollutant load reductions, specified in the draft TMDL and WQMP. With the exception of DEQ, the following state agencies will need to develop or revise a TMDL implementation plan.

Oregon Department of Environmental Quality implements pollutant waste load allocations through National Pollutant Discharge Elimination System (NPDES) permits. The proposed rule will have an impact on DEQ through ongoing work to ensure elements of the TMDL are adopted into regulatory documents such as permits, or TMDL implementation plans to achieve water

quality standards and to ensure permits and plans are implemented. Because allocations are applied in permits upon evaluation for renewal or new applications, this does not represent additional fiscal impact to DEQ for the draft TMDL implementation.

Oregon Department of Agriculture will be responsible for developing management plans for implementation of practices to achieve nonpoint source pollutant load allocations, meet water quality standards on private lands for agricultural activities within the watershed, annual reporting, and to participate in monitoring and periodic progress reviews. ODA management areas make up approximately 29.5 percent of the land area within the watershed adjacent to the Snake River. ODA state statutes and rules are a mix of existing regulatory programs and voluntary measures used for implementation to improve or protect water quality and land conditions on agricultural lands or related to agricultural activities. ODA does this work in partnership with local Soil Water Conservation Districts and Local Advisory Committees. ODA will likely incur costs to implement temperature-related management strategies, administrative costs for development of a TMDL implementation plan and reporting costs associated with this TMDL. In addition, DEQ is proposing to require ODA to participate in stream monitoring as part of the Monitoring Strategy described in the WQMP. It is unknown what those costs will be at this time. Financial incentives and technical assistance programs are available to assist private landowners. Grant and low interest loan funding is available to ODA, Soil Water Conservation Districts, and individual landowners or operators to support implementation of assessment, pollution controls, and watershed restoration actions or land condition improvements that may be necessary to meet TMDL requirements.

Oregon Department of Transportation is responsible for implementing practices to achieve pollutant allocations related to highways within the watershed. ODOT is required to comply with its DEQ-issued Municipal Stormwater Permit, including development of a statewide TMDL implementation plan. ODOT will likely incur costs to implement temperature-related management strategies, administrative costs for development of a TMDL implementation plan and reporting costs associated with this TMDL. The plan must include practices to achieve Snake River temperature TMDL allocations related to nonpoint sources of excess solar radiation.

Oregon Parks and Recreation Department is responsible for implementing practices to achieve pollutant allocations related to state park lands within the project area. Administrative costs for managing state park lands are not dependent on TMDLs, but OPRD will likely incur costs to implement temperature-related management strategies, administrative costs for development of a TMDL implementation plan and reporting costs associated with this TMDL.

Oregon Department of Fish and Wildlife is responsible for implementing practices to achieve pollutant allocations related to lands managed by ODFW within the project area. ODFW will likely incur costs to implement temperature-related management strategies, administrative costs for development of a TMDL implementation plan and reporting costs associated with this TMDL.

Local governments

There are four cities and counties in the Snake River project area that are named in the draft proposed WQMP as DMAs. A list of the cities, counties and public utilities can be found in the draft proposed WQMP in Section 5. These four local government DMAs will likely incur costs to implement temperature-related management strategies, administrative costs for development of a TMDL implementation plan and reporting costs associated with this TMDL.

Financial incentives and technical assistance programs are available to assist local governments and private landowners within cities and counties. Grants or low interest loan funding are available to support implementation of assessment, pollution controls and watershed restoration actions or landscape improvements that may be necessary to meet TMDL requirements.

Public

The proposed rule does not have direct costs to the public. There may be indirect costs to the public if DMAs, such as cities or counties, pass on implementation costs to the public through increased fees or taxes. The TMDL replacement for temperature will provide a positive indirect impact with potential economic benefits to the public who live, work, and recreate in the watershed. The positive impacts will also expand the ecological benefits of the natural resources in the Snake River Basin. Threatened native populations of Chinook salmon, steelhead trout and bull trout, as well as redband trout, white sturgeon, and other aquatic life are culturally and economically significant to the basin. Elevated stream temperatures are a factor in their decline.

The proposed rule supports the Oregon Plan for Salmon and Watersheds mission: “Restoring our native fish populations and the aquatic systems that support them to productive and sustainable levels that will provide substantial environmental, cultural, and economic benefits.” The Oregon Plan is a comprehensive partnership between government, communities, private landowners, industry, and citizens funded by the Oregon Legislature. Efforts under the Oregon Plan include regulatory and non-regulatory programs designed to restore native salmon runs, improve water quality, and maintain healthy watersheds and human communities throughout Oregon.

In 2019, local recreationists and visitors spent \$516 million in the Northeastern Oregon Tourism Region. Outdoor recreation spending includes recreational trips, gear, apparel, equipment, and repair. Consumer spending supports businesses and jobs throughout the state. The statewide economic contribution of recreational anglers to Oregon’s economy as of 2018 was \$1.5 billion, supporting 13,120 jobs. It was estimated that 569,600 Oregon recreational anglers spent \$871.8 million in 2018.

Snake River Basin communities may experience a positive cultural and economic impact due to the proposed rule. The proposed rule may have a positive economic impact on income from recreational anglers and the public.

Large businesses - businesses with more than 50 employees

DEQ evaluated available data from the Oregon Employment Department (2022) and identified large businesses that operate within the basin are varied, and include, among others, universities, multinational corporations, and agricultural and timber related businesses. The proposed rule change could impose costs associated with achieving required reductions in pollutant contributions to waterways from the lands or operations of businesses within riparian areas related to the agriculture and forestry sectors. Specifically, the rule may result in unknown additional costs to approximately 3 large agricultural businesses with the TMDL if they are determined to be located within riparian areas.

Small businesses – businesses with 50 or fewer employees

DEQ searched the Oregon Employment Department database (2022) list of all businesses registered in Oregon. Small businesses within the three counties included in this proposed TMDL were filtered using North American Industry Classification System codes.

The proposed rule could impose costs associated with achieving required reductions in pollutant contributions to waterways from approximately 176 small agricultural and 16 timber-related businesses, if they are determined to be located within riparian areas. Some small woodlands owners, which are not identified as small businesses in OED's database of businesses in Oregon, within riparian areas could also have costs imposed. The proposed rule is unlikely to result in costs to approximately 1576 small businesses that are unrelated to agriculture and forestry.

Although the proposed rule does not place specific requirements on small businesses in aggregate, the proposed rule identifies management strategies and practices for the agricultural sector that are necessary to reduce pollutant loads. These activities may require changes in certain management practices or improvements in land conditions that could result in capital costs for small landowners. The Oregon Department of Agriculture has current rules in place that involve a mix of regulatory and voluntary practices by agricultural landowners to protect or improve water quality. Compliance costs for landowners implementing ODA rules are generally not dependent on TMDLs, because landowners must implement existing ODA water quality rules.

Grant and low interest loan funding are available to support implementation of pollution controls and watershed restoration actions required for compliance with TMDL requirements. The U.S. Dept. of Agriculture, Natural Resources Conservation Service offers a variety of programs to help farmers, ranchers, family forests, Tribes and conservation partners perform voluntary conservation on private lands funded through the Farm Bill. Small rural landowners and agricultural operators are eligible for NRCS Financial Assistance, grant and cost-share programs through, including Environmental Quality Incentives Program, Conservation Innovation Grants, Voluntary Public Access and Habitat Incentives Program, Voluntary Conservation Stewardship Program, Regional Conservation Partnership Program, Conservation Easements, and Agricultural Conservation Easements Program. The Oregon Watershed Enhancement Board offers multiple grant types.

Minority Owned Businesses

DEQ searched the Oregon Certification Office for Business Inclusion and Diversity (COBID) Certified Vendor Directory for all businesses currently certified as a Minority Business Enterprise (MBE). Businesses were selected from the three counties included in the Snake River project area and filtered based on NAICs codes to identify those related to agriculture.

There are no minority business enterprises identified as certified with COBID within the Snake River project area.

Resources outlined for large and small businesses above may also be utilized by Minority Business Enterprises. Additionally, the Oregon Association of Minority Entrepreneurs (OAME) provides technical assistance, microlending/ access to capital, marketing, networking and business incubation for minority business enterprises among other resources.

ORS 183.336 Cost of Compliance Effect on Small Businesses

a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

The number of registered small businesses in the Snake River area (including Baker, Malheur, and Wallowa counties) is 1,768 (OED, 2022). Small businesses may or may not be regulated by DMAs that are federal, state, or local government agencies that have legal authority over a sector or source contributing pollutants, identified by DEQ in the TMDL. The number of small businesses that are regulated by DMAs can vary over time.

b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

The proposed rule does not place specific administrative activities or requirements on most small businesses because implementation plan development and annual reporting responsibilities are assigned to responsible persons, including DMAs. Therefore, DEQ does not anticipate any significant costs to small businesses.

c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

Although the proposed rule does not place specific requirements on small businesses in aggregate, the proposed rule identifies management strategies and practices for the agricultural sector that are necessary to reduce pollutant loads. These activities may require changes in certain management practices or improvements in land conditions that could result in costs to small agricultural operations. Although compliance costs for implementing ODA rules are not dependent on TMDLs, addressing the proposed TMDL requirements may require additional supplies, labor, or administration for these businesses, including those that provide in-kind match to publicly funded restoration grants.

d. Describe how DEQ involved small businesses in developing this proposed rule.

DEQ provided notification of this rulemaking using the state opt-in email delivery system called GovDelivery. Small businesses that have signed up to receive DEQ notifications have been made aware of the proposed rule and informational webinar opportunities to ask questions and learn about the proposed rule. DEQ will solicit feedback and information from the Rule Advisory Committee regarding potential fiscal impacts to small businesses.

Documents relied on for fiscal and economic impact

The requirement to list the documents relied on to determine fiscal impact is separate from and in addition to the similar list in the rules affected, authorities, supporting documents section above.

- [DEQ's Oregon Administrative Rules 340-042-0080 Implementing a Total Maximum Daily Load](#)
- [Oregon Employment Department Request public records](#)
- [Oregon Employment Department Small Business database \(2022\)](#)
- [Private Forest Accord Report \(2022\)](#)
- [U.S. Census Bureau – 2020 Census – Census Tract Reference Map](#)
- [Oregon Certification Office for Business Inclusion and Diversity](#)
- [Oregon Plan for Salmon and Watersheds Resources](#)
- [Oregon Outdoor Recreation Economic Impact Study – Travel Oregon](#)
- [Oregon Commercial and Recreational Fishing Industry Economic Activity Coastwide and in Proximity to Marine Reserve Sites for Years 2018 and 2019, ODFW](#)
- [North American Industry Classification System \(NAICS\) codes](#)
- [U.S. Census Bureau QuickFacts](#)
- [DEQ Rulemaking webpage for the Snake River Temperature TMDL](#)

Housing cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-squarefoot detached, single-family dwelling on that parcel. DEQ determined the proposed rules would most likely not have an effect on development costs. If DMAs develop rules or ordinances as part of their TMDL implementation plan, it's possible that additional indirect costs could be passed along in the form of local permit fees. DEQ is unable to quantify the specific impacts of those potential additional costs if they exist to residential or business development costs.

Racial equity

ORS 183.335(2)(a)(F) as amended by House Bill 2993, requires state agencies, when providing notice of a rulemaking, to provide a statement identifying how adoption, amendment or repeal of the proposed rules will affect racial equity in the state.

The proposed rules are expected to have a positive impact on and help promote racial equity, particularly in benefitting Tribal interests. The true externalized costs of water pollution often negatively affect the indigenous, rural, minority and poor communities in Oregon. The proposed rules will help maintain healthy and abundant fisheries including subsistence salmonid fisheries and will also help minimize treatment costs of providing fresh, clean, and healthy water supplies to disadvantaged communities. Tribal nations were made aware of the rulemaking process and invited to consult on the rule advisory committee including, the Nez Perce Tribe and the Upper Snake River Tribes (composed of the Burns Paiute Tribe, Fort McDermitt Paiute-Shoshone Tribe, Shoshone-Bannock Tribes of the Fort Hall Reservation, and Shoshone-Paiute Tribes of the Duck Valley Reservation). DEQ will also engage extensively with agricultural, forestry, fishery, and conservation communities through the rule advisory committee.

Environmental justice considerations

ORS 182.545 requires natural resource agencies to consider the effects of their actions on environmental justice issues. DEQ was unable to use the EPA EJ Screen for this report at this time due to technical issues. DEQ used 2020 U.S Census Bureau to source demographic data for Baker, Malheur, and Wallowa Counties. Based on county data (household internet subscriptions) it is also recommended that educational materials be provided in physical means in addition to electronic means.

The externalized costs of water pollution can negatively affect poor, rural, indigenous and minority communities in Oregon. The proposed rules will help restore and maintain healthy and abundant fisheries, including salmonid species. Indigenous, rural, minority and poor communities may use salmon as a subsistence food source. Abundant fish would also restore and protect beneficial uses including recreation. The proposed temperature TMDL rule will help address the localized impacts of stream temperature impairments, and potentially improve other related water quality parameters, such as dissolved oxygen.

Unintended adverse consequences may include focusing available grant funding on rural lands that are not typically owned or managed by poor, indigenous and minority communities in Oregon, e.g., lands managed for agriculture in the Snake River Basin and privately owned properties adjacent to rivers and streams. Cost of DMAs compliance with TMDL requirements may be passed on to local communities through increased charges, such as water-related bills or system development charges to help pay for TMDL implementation. A potential favorable offset to some of the issues described above will be the current expansion of the 319 grant funding program. The program is being redeveloped to focus on environmental justice. The EPA memorandum “Continued Actions in FY23 to Increase Equity and Environmental Justice in the Nonpoint Source Program” will be used as a tool for DEQ to leverage potential 319 grant funding for overburdened communities. This initiative is currently in development.

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age, sex, religion, sexual orientation, gender identity, or marital status in the administration of its programs and activities.

For translation or other formats, visit DEQ's [Civil Rights and Environmental Justice page](#).