State of Oregon Department of Environmental Quality

Draft Fiscal Impact Statement

Temperature Total Maximum Daily Load Replacements
Willamette Mainstem and Major Tributaries
Rule Advisory Committee Meeting 3

Introduction

Consistent with Oregon Revised Statute 468B.110 and OAR chapter 340 division 42, DEQ proposes the draft Total Maximum Daily Load and Water Quality Management Plan for the Willamette Mainstem and Major Tributaries to address temperature impairments. The TMDL and Water Quality Management Plan will be proposed for adoption by Oregon's Environmental Quality Commission, by reference, into OAR 340-042-0090. The U.S. Environmental Protection Agency will review the TMDL by Feb. 28. 2025, after the commission adopts the rule.

DEQ is under a court order to update and replace this temperature TMDL to be consistent with the current temperature standards. This TMDL must be updated because it was 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 TMDL.

The federal Clean Water Act and implementing regulations require Oregon to biennially submit, for EPQ approval, a list of all impaired waterways in the state and to establish TMDLs for pollutants in waters listed as impaired. The biennial list submittal must include a priority ranking of TMDL development and identify waters targeted for TMDL development within the next two years.

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 Willamette River Basin encompasses 12 subbasins. This temperature TMDL replacement includes the following nine Willamette Subbasins for TMDLs issued in 2006 and 2008: Coast Fork Willamette, Middle Fork Willamette, Upper Willamette, Middle Willamette, Molalla-Pudding, North Santiam, South Santiam, Lower Willamette, and Clackamas subbasins.

Waterbodies to be included in the Willamette River mainstem and major tributaries project area include:

- Willamette River including all side channels and sloughs from the confluence of the Columbia River to the confluence of the Coast Fork Willamette and Middle Fork Willamette rivers (approximately river mile 187)
- Multnomah Channel
- Clackamas River up to River Mill Dam/Estacada Lake (approximately river mile 26)
- Santiam River (all 12 miles)
- North Santiam River up to Detroit Dam (approximately river mile 49)
- South Santiam River up to Foster Dam (approximately river mile 38)
- Long Tom River to Fern Ridge Dam (approximately river mile 26)
- Middle Fork Willamette to Dexter Dam (approximately river 17)
- Fall Creek to Fall Creek Dam (approximately river mile 7)
- Coast Fork Willamette to Cottage Grove Dam (approximately river mile 30)
- Row River to Dorena Dam (approximately river mile 7.5)

Information about the Temperature TMDL Replacement project and the Willamette Mainstem and Major Tributaries project area is online.

- Temperature TMDL Replacement project
  oregon.gov/deq/wq/tmdls/Pages/tmdlreplacement.aspx

- Willamette Mainstem and Major Tributaries
  https://www.oregon.gov/deq/wq/tmdls/Pages/tmdlRwillmainstem.aspx

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 (both positive and negative) on businesses, farms and ranches, forestlands, and federal, state, county, and city lands or operations in the Willamette Mainstem. DEQ is not able to quantify costs, but generally the costs of meeting the water quality standard for temperature, and associated TMDL allocations may be minimal for those responsible persons, including Designated Management Agencies, that have existing implementation plans under current WQMPs for temperature. 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 on-going 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 health 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 water pollution may disproportionally negatively affect poor, rural, indigenous and minority communities in Oregon.

In contrast, direct economic costs of TMDL implementation are borne only by those entities contributing excess pollutants to waterways. These costs can be reduced by choosing pollutant control or reduction strategies or options that align with their circumstance, perspective and/or business needs. 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 Willamette Mainstem and Major Tributaries.

The Willamette Mainstem TMDL applies to individual and general permit holders that have thermal impacts. 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 administrative and implementation costs. DEQ did not receive specific information for potentially affected operations within the watershed to determine economic impacts to landowners 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.
- In 2010, DEQ estimated costs for riparian restoration in the Willamette Basin, equivalent to standard buffers in the Natural Resources Conservation Service, conservation reserve program. The total restoration cost for the first 15-year period was estimated to average around $900 million with a range between $600 million to about $1.2 billion. Restoration costs were estimated and categorized by DMA.[1] This information could potentially be extrapolated to estimate approximate costs for temperature TMDL implementation improvements for large areas depending on the existing condition of the riparian areas.

The fiscal impact of the new waste load allocations (WLAs) on point source discharge will be variable. In the event the WLA is 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 effective shade targets and 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 for public entities (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 web page

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

[1] Cost Estimate to Restore Riparian Forest Buffers and Improve Stream Habitat in the Willamette Basin, Oregon. 2010. Michie, Ryan- Oregon Department of Environmental Quality.

agencies will be assigned responsibility for revising existing TMDL implementation plans or for developing a new TMDL implementation plan. Federal agencies may incur administrative costs associated with TMDL implementation development or revision. DEQ does not know the exact costs for the previously described reasons 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 one percent of the land area within the Willamette Mainstem watershed adjacent to streams. The BLM's current Resource Management Plans dictate how Riparian Reserves are managed. BLM will incur 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 identified 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. Army Corps of Engineers is responsible for revising an existing plan for management strategies and implementing practices to achieve nonpoint source pollutant load allocations. The Army Corps manages operations of 13 dams and reservoirs and the associated storage and flows from the reservoirs. The Willamette Mainstem TMDL project area includes river miles below the dams, including reservoir storage area and surrounding Army Corps managed land that makes up less than one percent of land use. The Army Corps operation and maintenance plans outline how reservoirs are managed to balance various needs and demands throughout the year such as flood control, fish and wildlife, hydropower, recreation, irrigation, water supply, water quality, and navigation. The Army Corps will incur administrative costs for revising the plan and reporting costs associated with this TMDL. The Army Corps existing plan does not outline how riparian areas are managed; it addresses the releases of flows from the dam.

U.S. Fish and Wildlife Service is responsible to develop management plans for strategies and implementation of practices to achieve nonpoint source pollutant load allocations on land owned by the federal government. U.S. Fish and Wildlife manages fish, wildlife, and natural habitats in three wildlife refuges, which makes up less than one percent of the land area within the Willamette Mainstem adjacent to streams. The Fish and Wildlife conservation management plans outline how refuge lands are managed and protected. U.S. Fish and Wildlife will incur administrative costs for development of a TMDL implementation plan and reporting costs associated with this proposed TMDL.

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.

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.

The following state agencies will need to develop or revise a TMDL implementation plan:

Oregon Department of Forestry will be responsible for developing plans for management strategies of forest lands and overseeing implementation of the state Forest Practices Act rules to achieve nonpoint source pollutant load allocations, and to meet water quality standards on non-federal forestlands (state, county, and private). ODF management areas make up approximately 6.5 percent of the land area within the project area adjacent to streams. ODF maintains forestry standards within the basin, performs annual reporting, and participates in monitoring and progress reviews. ODF state statutes and rules include a mix of existing practices, programs and voluntary measures that are promoted to landowners and other partners for restoration activities to improve or protect water quality, land condition and aquatic habitat on non-federal forestlands. Administrative costs for implementing these existing rules and programs are not dependent on TMDLs, but ODF 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 ODF to participate in stream monitoring as part of the Monitoring Strategy identified 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 forest landowners or operators to support implementation of assessment, pollution controls, watershed restoration activities or land condition improvements that may be necessary to meet TMDL requirements. It is acknowledged that financial incentive programs can be challenging for individual landowners or operators to navigate, and a local ODF stewardship forester, watershed council, or soil and water conservation district may be able to provide landowner assistance.

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 47 percent of the land area within the project area adjacent to streams. 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. Administrative costs for implementing these existing rules and programs are not dependent on TMDLs, but 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 identified 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 (for public entities) 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 Willamette Mainstem 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 subbasin. OPRD is an existing DMA who has been implementing a plan to address temperature impairments under the 2006 Willamette Basin and the 2008 Molalla-Pudding temperature TMDLs. Administrative costs for managing state park lands are not dependent on TMDLs, but OPRD may incur incremental costs to update their existing plan to incorporate any new requirements in this proposed WQMP.

Oregon Department of Fish and Wildlife is responsible for implementing practices to achieve pollutant allocations related to lands managed by ODFW within the subbasin. 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. ODFW also operates hatcheries within the project area that will need to meet any updated permit requirements.

Local governments

There are approximately 42 cities and counties in the Willamette Mainstem project area that are named in the draft proposed WQMP as DMAs. A list of the cities and counties can be found in the draft proposed WQMP in Appendix A. See meeting materials for Rule Advisory Committee meeting #2.[2] Many cities and counties are existing DMAs who have been implementing plans to address temperature impairments under the 2006 Willamette Basin temperature TMDL. For these existing DMAs there may be

[2] oregon.gov/deq/rulemaking/Pages/willamettetempTMDL.aspx

incremental costs to update their existing plans to incorporate any new requirements in this draft proposed WQMP. DEQ expects additional costs for any new DMA to develop an implementation plan, implement temperature strategies if the new DMA is not currently conducting these activities, and administrative costs associated with reporting requirements.

Some of these DMAs are required to conduct water temperature monitoring at large dams that they operate within the project area and include these requirements in their implementation plan. An update to the reservoir TMDL implementation plan may also be required based on the monitoring results. This requirement may result in potentially significant costs to these DMAs.

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 Willamette basin. Threatened native populations of Chinook salmon, steelhead trout and bull trout, as well as rainbow and cutthroat trout, 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[3] 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.

The proposed rule to maintain cold water temperatures supports state and federal conservation and recovery plans to restore or maintain healthy fisheries. The recovery plans identify TMDLs as a management strategy for fish recovery in waters that don't meet temperature standards. The Upper Willamette River Conservation and Recovery

[3] Oregon Plan for Salmon and Watersheds Resources
oregon.gov/oweb/resources/pages/opsw.aspx

Plan[4] serves as both a recovery plan under the Federal Endangered Species Act (ESA) and as a State of Oregon conservation plan under Oregon's Native Fish Conservation Policy, The Oregon Department of Fish and Wildlife Lower Columbia River Conservation and Recovery Plan; and National Marine Fisheries Service Endangered Species Act recovery plan for Lower Columbia River Coho salmon.[5]

In 2019, local recreationists and visitors spent $1.1 billion in Portland and $2 billion in Willamette Valley Tourism Regions.[6] 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.[7] It was estimated that 569,600 Oregon recreational anglers spent $871.8 million in 2018. Willamette 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[8] (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 large agricultural and timber-related businesses for compliance with the TMDL if they are determined to be located within riparian areas. Starting in July 2023, compliance costs for natural resource protections for industrial forestland owners may be associated with the Forest Practices Act rules, revised in October 2022 due to legislation associated with the

[4] ODFW Upper Willamette River Conservation and Recovery Plan
dfw.state.or.us/fish/crp/upper_willamette_river_plan.asp

[5] Lower Columbia River Chinook Salmon | NOAA Fisheries
fisheries.noaa.gov/west-coast/endangered-species-conservation/lower-columbia-river-chinook-salmon

[6] Oregon Outdoor Recreation Economic Impact Study - Travel Oregon
industry.traveloregon.com/resources/research/oregon-outdoor-recreation-economic-impact-study/

[7] Oregon Commercial and Recreational Fishing Industry Economic Activity Coastwide and in Proximity to Marine Reserve Sites for Years 2018 and 2019, ODFW
dfw.state.or.us/agency/docs/TRG%20ec%20summary%20Oregon%20Coast%20fishing%20industry%202018-2019%20ES.pdf

[8] Oregon Employment Department: Request public records
oregon.gov/employ/Agency/Pages/Request-a-Public-Record.aspx

Private Forests Accord, rather than this TMDL rule. This may reduce costs associated with implementing this proposed TMDL.

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 nine 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 1,205 small agricultural and 260 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 78,817 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 and forestry sectors 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 and the Oregon Department of Forestry have current rules in place that involve a mix of regulatory and voluntary practices by agricultural and forest landowners to protect or improve water quality. In October 2022, ODF updated its rules based on the 2022 Private Forest Accord report and passage of Senate Bills 1501 and 1502 and House Bill 4055 during the 2022 legislative session. ODF's new stream buffer rules took effect in July 2023. The authors of the Private Forest Accord anticipated ODF's new rules would have a greater, but unquantified fiscal impact on small forest landowners. Compliance costs for landowners implementing ODA and ODF rules are generally not dependent on TMDLs, because landowners must implement existing ODA and ODF water quality rules.

Grant and low interest loan funding (for public entities) 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[9] 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

[9] Natural Resources Conservation Service
https://www.nrcs.usda.gov/

Easements, and Agricultural Conservation Easements Program. The Oregon Watershed Enhancement Board offers multiple grant types.

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.

There are a number of registered small businesses in the Willamette Basin (including Benton, Clackamas, Columbia, Lane, Linn, Marion, Multnomah, Polk, and Yamhill counties). 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, record keeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

The proposed rule could impose costs to small businesses that have NPDES permits if system upgrades, or repairs are needed. There are X small businesses that were given a waste load allocation in the Willamette Mainstem TMDL. These entities may incur costs associated with implementing their NPDES discharge permit when they renew their permit. Costs associated with potential upgrades or repairs for these businesses is not known at this time.

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 and forestry sectors 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 or timber-producing operations. Although compliance costs for implementing ODA and ODF 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.

Document title	Document location
DEQ's Oregon Administrative Rules 340-042-0080 Implementing a Total Maximum Daily Load	secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1459
Oregon Employment Department Request public records	oregon.gov/employ/Agency/Pages/Request-a-Public-Record.aspx
DEQ's Cost Estimate to Restore Riparian Forest Buffers and Improve Stream Habitat in the Willamette Basin, Oregon (2010)	co.benton.or.us/sites/default/files/fileattachments/community_development/page/2516/willametteripcost030310.pdf
Economic Impacts of Pacific Salmon Fisheries	psc.org/download/333/special-reports/9337/economic-impacts-of-pacific-salmon-fisheries.pdf
Oregon Employment Department Small Business database (2022)	Please contact Oregon Employment Department for this information.
Private Forest Accord Report (2022)	oregon.gov/odf/Pages/private-forest-accord.aspx
Resource Management Plans for Western Oregon (U.S. Bureau of Land Management)	eplanning.blm.gov/public_projects/lup/57902/79046/91311/NCO_ROD_RMP_ePlanning.pdf
U.S. Environmental Protection Agency Environmental Justice Screening Tool	epa.gov/sites/production/files/2021-04/documents/ejscreen_technical_document.pdf
U.S. Census Bureau – 2020 Census – Census Tract Reference Map	census.gov/geographies/reference-maps/2020/geo/2020pl-maps/2020-census-tract.html
EPA webinar, Understanding Environmental Justice through two EPA tools: EJScreen and EnviroAtlas	epa.gov/research-states/understanding-environmental-justice-through-two-epa-tools-ejscreen-and-enviroatlas

Environmental Justice Best Practices for Oregon's Natural Resource Agencies	oregon.gov/dsl/About/Documents/Oregon_EJTF_Handbook_Final.pdf
EJ 2020 Action Agenda: EPA's Environmental Justice Strategy	epa.gov/environmentaljustice/ej-2020-action-agenda-epas-environmental-justice-strategy
Oregon Plan for Salmon and Watersheds Resources	oregon.gov/oweb/resources/pages/opsw.aspx
ODFW Upper Willamette River Conservation and Recovery Plan	dfw.state.or.us/fish/crp/upper_willamette_river_plan.asp
NOAA Fisheries Lower Columbia River Chinook Salmon	fisheries.noaa.gov/west-coast/endangered-species-conservation/lower-columbia-river-chinook-salmon
Oregon Outdoor Recreation Economic Impact Study – Travel Oregon	industry.traveloregon.com/resources/research/oregon-outdoor-recreation-economic-impact-study/
Oregon Commercial and Recreational Fishing Industry Economic Activity Coastwide and in Proximity to Marine Reserve Sites for Years 2018 and 2019, ODFW	dfw.state.or.us/agency/docs/TRG%20ec%20summary%20Oregon%20Coast%20fishing%20industry%202018-2019%20ES.pdf
North American Industry Classification System (NAICS) codes	census.gov/naics/
U.S. Census Bureau QuickFacts	https://www.census.gov/programs-surveys/sis/resources/data-tools/quickfacts.html
DEQ Rulemaking webpage for the Willamette Subbasins Temperature TMDL	oregon.gov/deq/rulemaking/Pages/willamettetempTMDL.aspx

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 quantity the specific impacts of those potential additional costs if they exist to residential or business development costs.

Racial equity considerations

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.

Tribal nations were made aware of the rulemaking process and invited to consult on the rule advisory committee including, the Confederated Tribes of Umatilla Indian Reservation, Confederated Tribes of Warm Springs, The Confederated Tribes of Grand Ronde, and Confederated Tribes of Yakama Nation. DEQ also engaged extensively with agricultural, forestry, fishery, and conservation communities through the Rule Advisory Committee.

DEQ expects the proposed rule to have a positive impact on and help promote racial equity, particularly in benefitting tribal interests. The externalized costs of water pollution often negatively affect poor, rural, indigenous and minority communities in Oregon and some underserved communities may not have equal access to technical and financial assistance or other resources. 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.

Environmental justice considerations

ORS 182.545 requires natural resource agencies to consider the effects of their actions on environmental justice issues.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, culture, education, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. DEQ is committed to incorporating environmental justice best practices into its programs and decision-making, to ensure all people in Oregon have equitable environmental and public health protections.

The U.S. Environmental Protection Agency, Environmental Justice Screening tool was not utilized for this report at this time due to technical issues. DEQ used 2020 U.S. Census Bureau to source demographic data for Multnomah, Columbia, Yamhill, Benton, Polk, Linn, Marion, Clackamas, and Lane Counties. Based on county data it is recommended that bilingual educational materials are provided to the public for outreach. 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.

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 in the 319 grant funding program. 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 or sex in administration of its programs or activities. Visit DEQ's Civil Rights and Environmental Justice page.