



State of Oregon Department of Environmental Quality

Oregon Environmental Quality

Commission Meeting

Sept. 14, 2023

Rulemaking Action Item G

Upper Yaquina River Watershed Total Maximum Daily Loads – Bacteria and Dissolved Oxygen

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DEQ recommendation to the EQC

DEQ recommends that the Environmental Quality Commission adopt the proposed rules in Attachment A as part of Chapter 340, Division 42 of the Oregon Administrative Rules and to incorporate, by reference, the Upper Yaquina Total Maximum Daily Loads (Attachment B) and Water Quality Maintenance Plan (Attachment C) for bacteria and dissolved oxygen.

Language of proposed EQC motion:

“I move that the commission adopt the proposed rules as seen in Attachment A as part of Chapter 340, Division 42 of the Oregon Administrative Rules and to incorporate, by reference, the Upper Yaquina Total Maximum Daily Loads (Attachment B) and Water Quality Maintenance Plan (Attachment C) for bacteria and dissolved oxygen.”

Overview

The federal Clean Water Act and implementing regulations require Oregon to biennially submit, for U.S. Environmental Protection Agency approval, a list of all impaired waterways in the state. The Act also requires Oregon to establish Total Maximum Daily Loads, or 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.

In February 2022, the Oregon Environmental Quality Commission adopted amendments to Oregon Administrative Rule Chapter 340, Division 42 that align with authorities in Oregon Revised Statutes to allow adoption of TMDLs as rules, as well as issued by order.

DEQ is conducting this rulemaking to establish TMDLs to address the impairments to water quality standards and beneficial uses in surface waters in the Upper Yaquina River Watershed, located in the Mid Coast Basin. These impairments are caused by excess bacteria and inadequate dissolved oxygen (due to excess solar radiation and phosphorus) and are addressed by implementing OAR Chapter 340, Division 42. The proposed rules identify and quantify sources of these pollutants and establish a Water Quality Management Plan, or WQMP, that includes pollutant management strategies, a list of persons and agencies responsible for developing management plans and implementing strategies, and a timeline to reduce pollutant loads and attain water quality standards.

Rule adoption and subsequent implementation of the proposed TMDLs and WQMP may have fiscal or economic impacts (both negative and positive) on current and future operators of some: farms and ranches; private forestlands; a railroad right-of-way; and federal, state and county lands or operations within the Upper Yaquina River Watershed. However, fiscal or economic impacts and costs of compliance would not be different than if the TMDLs were issued as a department order. And without issuance and implementation of the TMDLs, the economic and health costs of ongoing water pollution would continue and Oregon would not meet the federal requirement of establishing TMDLs to restore impaired waters to meet Oregon’s water quality standards.

Statement of need

What need would the proposed rules address?

Several streams within the Upper Yaquina River Watershed include assessment units that are listed as impaired for bacteria and dissolved oxygen, which impair beneficial uses including water contact recreation, livestock watering and fish and aquatic life. Section 303 of the federal Clean Water Act, its implementing regulations (40 C.F.R. Part 130) and state law (OAR Chapter 340, Division 42) require Oregon to establish Total Maximum Daily Loads for pollutants impairing the beneficial use(s) of waterways in the state.

How would the proposed rules address the need?

Implementation of OAR Chapter 340, Division 42, under authorities granted in ORS 468 and 468B, allow DEQ to satisfy the state and federal requirements to establish TMDLs for the pollutants (E. coli, solar radiation and phosphorus), which contribute to impairments of bacteria and dissolved oxygen within the streams of the watershed.

How will DEQ know the rules addressed the need?

If EQC adopts the Upper Yaquina River Watershed TMDLs rules, that action will confirm that state requirements for establishing TMDLs for waters listed as impaired will be met. EPA's approval of the TMDLs by will confirm that federal requirements for developing TMDLs for waters listed as impaired will be met.

Rules affected, authorities, supporting documents

Lead division

Water Quality

Program or activity

Watersheds Management

Chapter 340 action

Adopt: 340-042-0090

Statutory Authority – ORS				
468.020	468.065	468B.020	468B.030	468B.035
468B.110				

Statutes Implemented – ORS				
468B.020	468B.110			

Documents relied on for rulemaking

Document title	Document location
DEQ's Oregon Administrative Rules 340-042-0080 Implementing a Total Maximum Daily Load	https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1459
Draft Upper Yaquina River Watershed TMDLs Technical Support Document	https://www.oregon.gov/deq/rulemaking/Pages/upperyaquinaTMDL.aspx

Fee analysis

This rulemaking does not involve fees.

Statement of fiscal and economic impact

Fiscal and economic impact overview

Issuance and subsequent implementation of the proposed TMDLs and WQMP may have fiscal or economic impacts (both negative and positive) on current and future operators of some: farms and ranches; private forestlands; a railroad right-of-way; and federal, state and county lands or operations within the Upper Yaquina River Watershed. However, DEQ determined that fiscal or economic impacts and costs of compliance would not be different than if the TMDLs were issued as a department order.

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 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 disproportionately 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 particular circumstance, perspective or business needs. The potential economic and ecosystem service benefits of improved water quality and protection of beneficial uses may be realized by all those who live, work and recreate within and downstream of the Upper Yaquina River Watershed.

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 particular landowners or business operators. DEQ expects costs of compliance to vary for one or more of the following reasons:

- Locations and seasonality of pollution sources and activities can vary among locations due to the seasonality of bacteria and dissolved oxygen impairments.
- Pollution controls or activities may already be in place in some locations that prevent or reduce exceedances of water quality criteria.
- Pollutant control strategies required in the WQMP vary by pollutant and source sector.
- Multiple pollution controls may be needed as some locations.
- The presence of buildings or transportation infrastructure may preclude pollution controls in some locations.

- DEQ does not have exhaustive information to determine all potential sources or what actions are currently occurring that could be modified or enhanced to prevent exceedances of water quality standards.
- Pollutant source assessment and allocations are identified by source sector, not individual property or activity.
- Acreages and locations of pollutant sources and relative amount of pollutant contributions vary across the watershed.
- A range of organizational capacity exists for implementation plan development and there are varying levels of complexity needed in plans.

Members of the Upper Yaquina TMDLs Rule Advisory Committee recommended DEQ use available information to quantify total costs of full implementation of the pollution controls of riparian vegetation restoration and livestock access limitations estimated to be needed by the TMDLs. In 2010, DEQ estimated costs for riparian restoration in the Willamette Basin, equivalent to standard buffers in the Conservation Reserve Enhancement Program using data from the Natural Resources Conservation Service. One advisory committee member estimated that extrapolating these costs to the Yaquina River Watershed and applying inflation adjustment factor (1.385) to better estimate 2022 costs, yields anticipated costs of approximately \$6,500 to \$10,000 per acre for riparian vegetation or fencing. DEQ concluded that these figures represent a reasonable range of riparian restoration costs, while noting that individual site costs would range from \$0 to \$10,000 per acre, depending on the existing condition of riparian areas, which may already have adequate pollution controls in place.

DEQ estimated that approximately 160-acres along certain streams in the watershed require restoration to effectively implement the TMDL. Using the \$10,000 per acre figure, DEQ conservatively estimated approximately \$1.6 million will be needed for establishing the needed riparian vegetated buffer over the timeframes estimated in the WQMP. These estimated costs are not distinguishable between public and private investment and costs cannot be refined to a site-specific level (for the reasons listed above).

Where investments are necessary to meet TMDL 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 (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 webpage: <https://www.oregon.gov/deq/wq/tmdls/Pages/TMDLs-Funding.aspx>

At least one member of the Upper Yaquina TMDL Rule Advisory Committee recommended acknowledging and quantifying previous investments in watershed restoration in the Upper Yaquina River Watershed. Over the past two decades, grants from the Oregon Watershed Enhancement Board to the Mid Coast Watersheds Council have been applied in cooperation with, and investments from, agricultural and small woodlot landowners to improve riparian conditions, reduce livestock access to streams and improve instream habitat. In addition, one landowner enrolled 60 acres in the U.S. Department of Agriculture's Conservation Reserve

Enhancement Program. Riparian restoration projects require years to multiple decades to provide functions needed to improve water quality and DEQ does not have current information on the status, success or costs of most restoration projects. However, DEQ's review of several Oregon Watershed Enhancement Board final project reports found that certain projects were not fully implemented in the watershed. Moreover, the 2021 Strategic Implementation Area tax lot-level survey by Oregon Department of Agriculture confirmed that multiple streamside areas in the watershed are not in a condition that provides the full range of riparian functions, nor are they on a trajectory to do so. The combination of past or existing riparian improvement or protection projects may offset a portion of the costs of restoring riparian vegetation required by the TMDL.

For each affected entity in the sections that follow, potential costs of compliance for implementing pollutant controls are highly variable for the reasons in the list above.

State and federal agencies

Several state and federal agencies will be assigned responsibility for developing plans and implementing management strategies to achieve cumulative pollutant load reductions, specified in the TMDL and WQMP. Compliance costs are not different for implementing TMDLs issued by department order or TMDLs adopted as rules, with the exception of increased administrative costs for the Oregon Departments of Forestry and Agriculture. Various grant funding opportunities are available to support implementation of pollution controls and watershed restoration actions required to meet TMDL requirements.

DEQ implements pollutant waste load allocations through National Pollutant Discharge Elimination System, or NPDES, permits. Because allocations are applied in permits upon evaluation for renewal or initial applications, this does not represent additional fiscal impact to DEQ for TMDL implementation.

Oregon Department of Forestry is responsible for developing plans for management strategies and overseeing implementation of state Forest Practices Act rules to achieve nonpoint source pollutant load allocations and meet water quality standards on non-federal forestlands (state, county, and private) within the watershed, perform annual reporting and participate in monitoring and periodic progress reviews. Per ODF authorities described in state statutes and rules, a mix of existing practices, programs and voluntary measures are promoted for implementation 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 incur administrative costs for development of a TMDL implementation plan. Administrative and implementation costs for ODF and individual forestland owners/operators will be not different for implementing TMDLs issued by department order than TMDLs adopted as rules. Financial incentives and technical assistance programs are available through federal, state and local agencies and organizations to assist private forest landowners/operators to support implementation of site assessment, pollution controls, watershed restoration activities or forestland condition improvements that may be necessary to meet TMDL requirements.

Oregon Department of Agriculture is responsible for developing plans for management strategies and overseeing implementation of practices to achieve nonpoint source pollutant load allocations and meet water quality standards on private lands for all agricultural activities within the watershed, perform annual reporting and participate in monitoring and periodic progress reviews. Per ODA authorities described in state statutes and rules, a mix of existing regulatory programs and voluntary measures are implemented on agricultural lands or related to agricultural activities, in partnership with local Soil Water Conservation Districts and Local Advisory Committees, to improve or protect water quality and land condition that impacts water quality. ODA dedicated a position to help implement the Oregon Plan Habitat Strategy in the Oregon Coast ESU (ODFW, 2007). Administrative costs for implementing these existing rules and programs are not dependent on TMDLs, but ODA will incur administrative costs for development of a TMDL implementation plan. Administrative and implementation costs for ODA and individual landowners/producers are not different for implementing TMDLs issued by department order than TMDLs adopted as rules. Financial incentives and technical assistance programs are available to assist private landowners. Grant funding opportunities are available to ODA, SWCDs, and individual landowners/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 separate storm sewer system permit, also called an MS4 stormwater permit, including development of a statewide TMDL implementation plan. The plan must include practices to achieve TMDL allocations related to both stormwater discharges and nonpoint sources of excess solar radiation. Compliance costs are not different for ODOT for implementing TMDLs issued by department order than TMDLs adopted as rules.

Oregon Department of State Lands protects and conserves state waterways and wetlands through administration of Oregon's Removal-Fill Law, Scenic Waterways Law and the Wetland Conservation Program. DSL will not incur additional administrative or compliance costs in administering its aquatic resource management programs, without developing a TMDL-specific implementation plan.

U.S. Bureau of Land Management is responsible for developing plans for management strategies and implementing practices to achieve nonpoint source pollutant load allocations on forest land owned by the federal government, which makes up approximately one percent of the land area within the watershed. The BLM's current Resource Management Plan dictates how Riparian Reserves are managed. Administrative costs for implementing these existing rules and programs are not dependent on TMDLs, but BLM will incur administrative costs for development of a TMDL implementation plan. These costs are not different for implementing TMDLs issued by department order than TMDLs adopted as rules.

Local governments

Lincoln and Benton counties are responsible for developing plans and implementing practices to achieve pollutant load allocations for rural residential planning and development, building code administration and enforcement, onsite septic system permitting and compliance and operation of the county transportation systems within the watershed. The counties will incur administrative costs for development of a TMDL implementation plan. Administrative and implementation costs are not different for these entities for implementing TMDLs issued by department order than TMDLs adopted as rules. Financial incentives and technical assistance programs are available to assist local governments and private landowners. Grant or low interest loan funding are available to support implementation of assessment, pollution controls and watershed restoration and protection actions or land condition improvements that may be necessary to meet TMDL requirements.

Public

The proposed TMDL rule does not have direct economic costs to the public at large. DEQ acknowledges indirect costs to some individual landowners or business operators could occur, that will vary as described in the opening of the costs of compliance section. As a result of the proposed rule, DEQ expects that currently impaired beneficial uses of waters in the Upper Yaquina River Watershed will be restored. These improvements would provide an overall positive direct economic impact to the public who live, work and recreate in the watershed and downstream.

The proposed TMDL rule supports the Oregon Plan 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. TMDLs are the primary regulatory approach to addressing water bodies that do not meet water quality standards.

Commercial and recreational fishing is a major driver in the Oregon economy, especially in smaller rural communities. Water quality, particularly low dissolved oxygen, is a limiting factor that imperils the Yaquina population of Oregon coastal coho, which is significant in the culture and depleted employment of the Oregon central coast. The proposed rules support state and federal conservation or recovery plans to restore or maintain healthy fisheries and will also help improve water contact recreation and livestock watering opportunities. Small Oregon coastal communities downstream of the watershed, which once relied heavily on commercial salmon fishing for their income, may experience a positive economic impact due to the proposed rules, if salmonid populations increase.

For comments on DEQ’s proposed update to Oregon’s water quality standards on Aquatic Life Use mapping, the Deschutes River Alliance estimated the statewide economic contribution of recreational anglers to Oregon’s economy as of 2018 at \$1.5 billion dollars,

supporting 13,120 jobs. They also estimated that in Oregon 569,600 recreational anglers spent \$871.8 million in 2018 (Pacific Salmon Commission, 2017). The proposed rules may have a positive economic impact on income from recreational anglers if salmonid populations increase. Improvements in recreational salmon fishing may also have a positive economic impact on the public who can use the salmon as a food source.

Commercial salmon fishing generates thousands of jobs in smaller coastal Pacific Northwest communities. The Oregon Department of Fish and Wildlife estimated that Oregon's coastal commercial salmon fisheries generated an average of 396,728 landed pounds of salmon from 2010-2017 in its multiple coastal ports. With the resulting average revenue of approximately \$2 million, ODFW estimated that this created more than \$5 million in net economic impacts to Oregon's coastal communities through commerce (ODFW, 2019).

Large businesses - businesses with more than 50 employees

The large businesses that operate within the watershed are private industrial timber companies and one railroad company. These entities do not have captive locations in the watershed with greater than 50 employees but manage significant tracts of land and/or operate extensive transportation networks. The rule could impose costs associated with achieving required reductions in pollutant contributions to waterways from these lands or operations. Starting in July 2023, compliance costs for natural resource protections for industrial forestland owners may be associated with Forest Practices Act requirements and associated rules, revised in October 2022 due to legislation associated with the Private Forests Accord, rather than this TMDL rule.

Administrative and implementation costs will be incurred by the railroad for implementation plan development, periodic reporting and periodic assessment of riparian conditions in the railroad right-of-way. DEQ does not anticipate different economic impacts to any large businesses as a result of the rule, compared to costs for administration or implementation of TMDLs issued by department order.

Small businesses – businesses with 50 or fewer employees

The rule could impose costs associated with achieving required reductions in pollutant contributions to waterways from five small agricultural and timber-related businesses (non-industrial private forestlands), as well as an unquantified number of small woodlands owners and small livestock and farm operations, which are not identified as small businesses in Oregon's database. The rule could also impose costs on four small businesses unrelated to agriculture and forestry if repairs or upgrades to septic systems are needed.

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. Both Oregon Department of Agriculture and Oregon Department of Forestry have 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 begin to take 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 implementing ODA and ODF rules are not dependent on TMDLs.

Some of these costs may be offset by preventing erosion or improving the productivity of certain agricultural and forest lands. However, administrative and implementation costs are not different for implementing TMDLs issued by department order compared to TMDLs adopted as rules. In addition, various grant funding opportunities are available to support implementation of pollution controls and watershed restoration actions required for compliance with TMDL requirements. The US Department of Agriculture, Natural Resource 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, including Oregon Agricultural Heritage Program grants, the only grant type specific to agricultural lands. And Oregon Department of Agriculture, Oregon Department of Forestry and Oregon Department of Fish and Wildlife offer grants and tax credits/deferrals and other incentives water quality and aquatic habitat improvements. A list of many of these opportunities is provided in the proposed Water Quality Management Plan.

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.

DEQ searched the Oregon Employment Department database (2021) list of all businesses registered in Oregon, using NAICS codes and zip codes for the watershed and nearby. DEQ identified one registered small agricultural business (non-cattle), four registered small timber or logging businesses and four registered small businesses unrelated to forestry or agriculture within the watershed. Based on this review and input from the Upper Yaquina TMDL Rule Advisory Committee, there are small agricultural producers and small woodlot operations that do not appear to be identified as "small businesses" as defined in ORS 183.310, but instead report their farm or forestry income on individual federal tax reporting.

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 small businesses because implementation plan development and annual reporting responsibilities are assigned to state and local governments as Designated Management Agencies. Therefore, DEQ does not anticipate any significant costs of these types 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 TMDL requirements may require additional supplies, labor or administration for these businesses, including those that provide in-kind match to publicly funded restoration grants. Some capital costs may be offset by preventing erosion or improving the productivity of certain agricultural and timber lands through grant funded conservation projects.

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

DEQ included individual landowners and representatives from agricultural and forestry interest groups on the Rule Advisory Committee to advise DEQ on economic impacts and costs of compliance for small businesses. DEQ also provided rulemaking notice to a statewide list of individuals and organizations interested in TMDLs and nonpoint source actions. These groups included small businesses.

Documents relied on for fiscal and economic impact

Document title	Document location
DEQ’s Oregon Administrative Rules 340-042-0080 Implementing a Total Maximum Daily Load	https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1459
Economic Impacts of Pacific Salmon Fisheries – Pacific Salmon Commission (2017)	https://www.psc.org/download/333/special-reports/9337/economic-impacts-of-pacific-salmon-fisheries.pdf
Oregon’s Ocean Commercial Fisheries – Oregon Department of Fish and Wildlife (2019)	https://www.dfw.state.or.us/MRP/docs/Background_Comm_Fishing.pdf
Oregon Coast Coho Conservation Plan for the State of Oregon - Oregon Department of Fish and Wildlife, in partnership with state and federal natural resource agencies (2007)	https://www.dfw.state.or.us/fish/crp/docs/coastal_coho/final/coho_plan.pdf
The Oregon Coast Coho Conservation Plan for the State of Oregon: 12-year Assessment (ODFW 2019)	https://www.dfw.state.or.us/fish/CRP/docs/coastal_coho/economic_reports/OCCCP%202019%2012-Year%20Plan%20Assessment.pdf
Natural Resource Conservation Service programs page	https://www.nrcs.usda.gov/wps/portal/nrcs/main/or/programs/
Natural Resource Conservation Service Riparian Forest Buffer Code 391 (2022)	https://efotg.sc.egov.usda.gov/api/CPSFile/39232/391_OR_CPS_Riparian_Forest_Buffer_2022

DEQ's Cost Estimate to Restore Riparian Forest Buffers and Improve Stream Habitat in the Willamette Basin, Oregon (2010)	https://www.oregon.gov/deq/wq/Documents/willRipCostRev2.pdf
Oregon Employment Department Small Business database (2021)	https://www.oregon.gov/employ/Agency/Pages/Request-a-Public-Record.aspx
Oregon State University - Small Farms Program	https://smallfarms.oregonstate.edu/
Oregon Department of Forestry-Forest resources: Helping landowners	https://www.oregon.gov/odf/working/Pages/helpinglandowners.aspx
Oregon Department of Agriculture - Agricultural Water Quality Plans	https://www.oregon.gov/oda/programs/NaturalResources/AgWQ/Pages/AgWQPlans.aspx
Oregon Department of Agriculture - Grants, Loans, and Technical Assistance	https://www.oregon.gov/oda/agriculture/Pages/Grants.aspx
Oregon Plan for Salmon and Watersheds	https://www.oregon.gov/oweb/resources/pages/ops.w.aspx
Oregon Watershed Enhancement Board (OWEB) - Grant Programs	https://www.oregon.gov/oweb/grants/Pages/grant-programs.aspx
Private Forest Accord Report (2022)	https://www.oregon.gov/odf/Pages/private-forest-accord.aspx
Resource Management Plans for Western Oregon (U.S. Bureau of Land Management)	https://eplanning.blm.gov/public_projects/lup/57902/79046/91311/NCO_ROD_RMP_ePlanning.pdf
Agricultural Statistics – ODA, USDA Census of Agriculture	https://www.oregon.gov/oda/agriculture/pages/statistics.aspx
US Environmental Protection Agency Environmental Justice Screening Tool	https://www.epa.gov/sites/production/files/2021-04/documents/ejscreen_technical_document.pdf
Oregon Department of Human Services data and reports	https://www.oregon.gov/odhs/data/Pages/default.aspx
Oregon Department of Human Services – County Quick Facts 2018	https://www.oregon.gov/odhs/data/agencydata/odhs-county-quick-facts-2018.pdf
US Census Bureau – 2020 Census – Census Tract Reference Map	https://www.census.gov/geographies/reference-maps/2020/geo/2020pl-maps/2020-census-tract.html
Written input from Upper Yaquina TMDL Rule Advisory Committee	Available from DEQ, upon request

Advisory committee fiscal review

DEQ appointed an advisory committee.

As ORS 183.33 requires, DEQ asked for the committee's recommendations on:

- Whether the proposed rules would have a fiscal or economic impact,
- The extent of the impact, and
- Whether the proposed rules would have a significant adverse impact on small businesses; if so, how DEQ can comply with ORS 183.540 to reduce that impact.

If a significant impact is identified by the committee, as ORS 183.333 and 183.540 requires, the committee will consider how DEQ could reduce the rules' fiscal impact on small business.

Advisory committee recommendations on whether the proposed rule will have a fiscal or economic impact and extent of impact

DEQ integrated Rule Advisory Committee, or RAC, members' input on calculating costs of restoration activities and quantifying previous restoration investments into the Costs of Compliance section of this notice. Additional RAC member recommendations are discussed below.

Two members of the Upper Yaquina TMDL RAC recommended the fiscal analysis focus less on costs of action to meet the TMDL regulatory targets and more on consideration of economic and other societal benefits of restoring water quality in the watershed and downstream. One RAC member recommended following federal guidelines (from the National Environmental Policy Act and Updated Principles and Requirements for Federal Investments in Water Resources) and using findings from studies on the economics of climate change, biodiversity and ecosystems services (including a 2019 study on non-market benefits of improving Oregon Coast Coho habitat conditions) to quantify the potential positive direct and indirect economic impacts of TMDL required actions to improve and protect water quality in the watershed. Neither RAC member quantified the economic benefits of implementing the TMDLs in the Yaquina watershed, but both posited that the positive economic impacts of restoring water quality in the watershed will benefit many people and far exceed the negative economic impacts to individual landowners and businesses.

DEQ concluded that the RAC member input summarized above raises important questions about the inseparable relationships among watershed function, aquatic habitat, water quality, climatic changes and other environmental considerations. However, this larger synthesis of ecosystem services and economics and the federal guidance recommended are beyond the scope of fiscal analysis of these TMDL rules.

In response to this input, DEQ identified information specific to coastal coho recovery for the Yaquina population based on review of Oregon Coast Coho Conservation Plan (ODFW 2007) documentation, The Oregon Coast Coho Conservation Plan for the State of Oregon: 12-year Assessment (ODFW 2019) combined with discussions with Oregon Department of Fish and Wildlife. DEQ summarized information from these documents in the TMDL Technical Support Document, which can be used to estimate the costs of habitat restoration and the status of progress towards achieving the high-quality habitat targets for each population within the Oregon Coast Coho Evolutionary Significant Unit.

Advisory committee recommendations on whether the proposed rule will have significant adverse impact on small businesses

Upper Yaquina TMDL Rule Advisory Committee members provided the following additional information for consideration regarding impacts to small businesses:

- There are many small farms in the watershed that are not registered as small businesses and report farm income on individual federal income tax filings.
- Certain investments in rural land ownership, land lease agreements or land management contracts in the watershed may also represent small businesses, but neither the number nor the potential impacts on these entities were quantified.

Two advisory committee members indicated that their small agricultural and timber businesses could incur adverse economic impacts due to implementing the TMDL, including loss of future timber harvest income.

One member provided the following estimates of landowner/operator losses for DEQ to consider in implementing the management strategies proposed in the TMDL:

- 120-foot vegetated buffers along streams equates to foregoing up to 40,000 board feet of timber or about \$1,000 per year per acre, noting that this could be required under the forest practice rule amendments currently underway
- Converting pastures along streams to woody vegetation equates to foregoing some number of cow/calf pairs or about \$1,000 per year per 5 acres
- Vegetating pastures along streams equates to foregoing hay production of about 2 tons per acre or about \$300 per acre

However, the committee did not quantify the acreage/extent of the estimated impacts or relate potential impacts to areas within the watershed subject to riparian effective shade allocations. Both acknowledged that some portion of their predicted economic losses (including a portion of retirement investment) would be due to implementation of amended forest practice rules, rather than the TMDL rule.

One committee member indicated that there are negative property tax implications for small farms that take land out of production, which could include certain types of conservation easement or status. DEQ evaluated this issue and concluded that while this does occur, it is only one of several possible outcomes. Some County tax assessors can and have determined that land in Natural Resource Conservation Service Farm Services Agency “CREP” contract status is no longer in agricultural production and therefore that portion of the property is taxed at a higher rate. DEQ also concluded that most riparian improvements and conservation actions can be conducted using a mix of funding mechanisms that allow a “working lands” approach, while providing opportunity for establishment of woody overstory vegetation. The change in property tax assessment status applies to the specific case where land is taken out of production. However, actions to restore a functioning riparian zone can provide opportunities including rotational grazing or certain harvesting, thereby supporting future agricultural uses. The Natural Resource Conservation Service Riparian Forest Buffer Code 391 states: “Periodic removal of some forest products such as high value trees and medicinal herbs, nuts, and fruits is permitted provided the intended purpose is not compromised by the loss of vegetation or harvesting disturbance” (NRCS, 2022). Based on the Oregon Department of Agriculture’s 2021 Strategic Implementation Area evaluation and DEQ’s vegetation height and shade assessment, a substantial portion of the near-stream area on land zoned for agriculture adjacent the Yaquina River (and Little Elk Creek) is either dominated by invasive species and is therefore not productive

agricultural land, or the land is not providing woodlot products. Within the area covered by DEQ's assessment, approximately 49% of both the acreage and stream miles adjacent to the Yaquina River exhibits vegetation height less than or equal to three feet. Restoration of these near-stream areas could provide a mix of agricultural use and water quality benefits as well as fish and wildlife habitat. DEQ concluded that it is inaccurate to presume that the riparian improvements necessary to meet the TMDL shade allocations would preclude agricultural uses.

Based on DEQ's riparian shade assessment for 25 miles of the Yaquina River combined with Oregon Department of Agriculture's tax lot level evaluation, a wide range of riparian vegetation and near-stream pasture conditions and associated productivity exist in the Upper Yaquina. These conditions range from near-stream areas dominated by invasive species to ones that represent typical hay or grazing pasture for this area of the coast range. In some locations, pasture hay production or livestock grazing is conducted close to the Yaquina River. In these areas, current management practices do not allow establishment of overstory woody vegetation necessary to provide standard riparian functions and are not consistent with the Mid-Coast Agricultural Water Quality Management Area Plan.

The implementation strategies identified for the Agricultural sector (Oregon Department of Agriculture as the DMA) in the WQMP are based on an assessment of land conditions and then identifying the highest priority locations and opportunities for implementing each strategy.

The TMDLs do not require taking large areas of grazing pasture or productive haying areas out of production. The dissolved oxygen TMDL identifies the effective shade target conditions needed to meet nonpoint sector solar radiation load allocations. DEQ discussed with the RAC members the use of a phased approach to implementation to identify and prioritize opportunities to implement practices to improve riparian shade.

Oregon Department of Agriculture commented that there may be a fiscal impact for some agricultural landowners for improvements needed to achieve conditions consistent with TMDL load allocations that are above and beyond compliance with the existing Agricultural Water Quality Ares Rules. Fiscal impacts could include taking some land out of production for riparian improvements and/or cost-share or match for implementing changes. ODA did not quantify these impacts or determine whether they were significant or adverse.

The Pacific Coast Federation of Fishermen's Associations concluded that there is no cost to landowners for providing or protecting shade producing vegetation due to issuance of the Upper Yaquina River Watershed TMDLs, because maintaining or restoring riparian area is required under the existing Agricultural Water Quality Management and Forest Practices rules.

Although the committee agreed there could be economic impacts to some individual small businesses, none of the committee members provided sufficient information to support the conclusion that the TMDLs rule would cause significant, adverse impacts to small businesses.

Advisory committee recommendations on how to reduce impacts

One RAC member suggested that certain potential impacts to small businesses could be reduced by increased funding or capacity for implementation of restoration projects or changes in land management practices. DEQ agrees with RAC member input that incentives to participate in Oregon Plan for Salmon and Watersheds projects need to be expanded to recruit more landowners.

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-square foot detached, single-family dwelling on that parcel. DEQ determined the proposed rules would have no effect on direct or indirect development costs.

Racial equity

ORS 183.335(2)(a)(F) requires state agencies to provide a statement identifying how adoption of this rule will affect racial equity in this state.

Tribal nations were made aware of the rulemaking process and invited to consult on this matter. Representatives from the Confederated Tribes of the Siletz Indians participated in the local and technical advisory groups convened in 2012 and on the Rule Advisory Committee.

DEQ also engaged extensively with agricultural, forestry, fishery and conservation communities through the local and technical advisory groups convened in 2012 and 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. By reducing water column bacteria and phosphorus and increasing dissolved oxygen, the proposed rule will help restore and maintain healthy and abundant fisheries (including subsistence salmonid fisheries common to poor, rural, indigenous and minority communities) and will also restore and protect beneficial uses including water contact recreation and livestock watering.

Environmental justice considerations

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

182.545 Duties of natural resource agencies. In order to provide greater public participation and to ensure that all persons affected by decisions of the natural resource agencies have a voice in those decisions, each natural resource agency shall:

(1) In making a determination whether and how to act, consider the effects of the action on environmental justice issues.

(2) Hold hearings at times and in locations that are convenient for people in the communities that will be affected by the decisions stemming from the hearings.

(3) Engage in public outreach activities in the communities that will be affected by decisions of the agency.

(4) Create a citizen advocate position that is responsible for:

(a) Encouraging public participation;

(b) Ensuring that the agency considers environmental justice issues; and

(c) Informing the agency of the effect of its decisions on communities traditionally underrepresented in public processes.

ORS 182.545 requires natural resource agencies to consider the effects of their actions on environmental justice issues. DEQ considered these effects by:

- Using available socioeconomic and demographic information to evaluate whether overburdened or disadvantaged communities are present in the watershed;
- Evaluating the potential impacts of TMDL issuance on the pollutant burden on communities in the watershed;
- Evaluating whether any disadvantaged communities would be disproportionately impacted by TMDL implementation; and,
- Conducting outreach to solicit input on TMDL development and implementation from the different communities living, working and recreating within the watershed.

DEQ used EPA's Environmental Justice screening tool and Oregon Health Authority data and reports (including the 2018 County Quick Facts) on a range of demographic, economic and health and wellbeing indicators to evaluate Lincoln County populations. DEQ concluded that Lincoln County residents, including those within the watershed, are on average older and less ethnically diverse with a higher percentage on social security and a slightly higher poverty rate than state averages. At 3 percent, the percentage of non-Hispanic Indian and Alaskan native population within the census block is higher than the state average of 0.9 percent. This is likely due to the locations of the Confederated Tribes of the Siletz Indians' governmental, cultural and residential centers being in the city of Siletz. While Siletz is outside of the watershed, the Tribes manage lands affected by impaired water quality within the watershed. As such, communities with potential disadvantages related to age, low income and minority status are present in the watershed.

DEQ also used EPA's EJ Screen to compile census and other data as indicators of the potential for increased impacts from exposure to pollutants. In addition, DEQ evaluated

information from conversations with people living and working in the watershed and surrounding areas to assess whether the TMDL would increase pollutant exposure, economic burdens or diminished recreational or subsistence fishing opportunities.

All pollutant exposure indicators were below state averages, with the exception of lead paint assumed to be in pre-1960s housing, which is not impacted by issuance of the TMDLs.

Some citizens residing in the broader Mid Coast Basin expressed concern for: exposure to aerially applied pesticides associated with private forest operations and risks to human health, water quality and aquatic life from land application of biosolids from municipal sewage treatment operations. The well-documented concerns of direct airborne and drinking water exposure pathways and indirect food chain exposures were the subject of a failed county ban on aerial pesticide application. Amendments to forest practices rules are intended to increase setbacks and better inform the public of aerial applications. The dissolved oxygen TMDL requires controls for nutrient components of pesticides that could reach waterways. Although one property is currently approved for land application of biosolids, currently biosolids are not applied within the watershed. If the site became active, the biosolids rules and TMDLs include required controls from agricultural areas to prevent mobilization of bacteria and nutrients from biosolids from the land where it is applied. Thus, the TMDLs would not increase any nutrient pollutant exposures from application of pesticides and biosolids.

DEQ's analysis of fiscal and economic impacts found that there could be costs associated with required TMDL implementation incurred by businesses and individuals that contribute bacteria, phosphorus and solar radiation to waterways within the watershed. However, improvements to water quality as a result of TMDL implementation will improve economic opportunities for fishing, recreating and livestock watering, which may have increased economic and health benefits. Lincoln County staff shared with DEQ concerns about costs being a barrier for rural, low-income residents in replacing failing septic systems, which may be needed in some areas of the watershed to meet TMDL bacteria allocations. However, DEQ determined that TMDL issuance can help focus resources to address pollutant loads from failing onsite wastewater treatment systems and highlight the need for assistance to residents that qualify for low-interest loans.

DEQ concluded that economic costs of TMDL implementation would not disproportionately impact disadvantaged communities. This is because communities with potential disadvantages related to age, low income and minority status are likely to realize proportionately higher benefit from water quality improvements increasing opportunities for subsistence fishing, recreation and livestock watering. In addition, Lincoln County can play an active role under existing regulations to support community-based loan programs and access federal resources to ease economic burdens for replacing failing septic systems, as needed.

As noted in the Racial Equity section of this Fiscal Impact Statement, DEQ engaged extensively with tribes and agricultural, forestry, fishery and conservation communities through the local and technical advisory groups since 2012 and the rule advisory committee

in 2022. DEQ also engaged with Lincoln County representatives and people living and working in the watershed, including older and low-income residents, through personal communication and as participants on the local and rule advisory groups. In addition, DEQ will publish the rule package for a 60-day public comment period and hold a public hearing to engage people living, working or recreating in the watershed. All input received will be considered for revisions to the TMDLs, WQMP and Fiscal Impact Statement, prior to their finalization and request for rule adoption by the Oregon Environmental Quality Commission.

Federal relationship

Relationship to federal requirements

ORS 183.332, 468A.327 and OAR 340-011-0029 require DEQ to attempt to adopt rules that correspond with existing equivalent federal laws and rules unless there are reasons not to do so.

The proposed rules implement federal requirements found in 40 CFR 130.7(c). Under the federal Clean Water Act, the state is required to establish TMDLs for water quality limited segments of waterways listed on the submittal required by Clean Water Act Section 303(d).

Land use

Land-use considerations

In adopting new or amended rules, ORS 197.180 and OAR 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with state wide land-use planning goals and local acknowledged comprehensive plans.

Under OAR 660-030-0005 and OAR 340 Division 18, DEQ considers that rules affect land use if:

- The statewide land use planning goals specifically refer to the rule or program, or
- The rule or program is reasonably expected to have significant effects on:
- Resources, objects, or areas identified in the statewide planning goals, or
- Present or future land uses identified in acknowledge comprehensive plans

DEQ determined whether the proposed rules involve programs or actions that affect land use by reviewing its Statewide Agency Coordination plan. The plan describes the programs that DEQ determined significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

Goal	Title
5	Natural Resources, Scenic and Historic Areas, and Open Spaces
6	Air, Water and Land Resources Quality
11	Public Facilities and Services
16	Estuarine Resources
19	Ocean Resources

Statewide goals also specifically reference the following DEQ programs:

- Nonpoint source discharge water quality program – Goal 16
- Water quality and sewage disposal systems – Goal 16
- Water quality permits and oil spill regulations – Goal 19

Determination

DEQ determined that these proposed rules do not affect land use under OAR 340-018-0030 or DEQ’s State Agency Coordination Program.

The proposed rules will either have no effect or an indirect positive effect on land use if cleaner water and healthier watersheds supports land-use planning goals. Healthier and more productive watersheds may better support livestock watering, salmon and steelhead fisheries, recreational economies that attract tourism and tourism-related jobs.

EQC prior involvement

DEQ provided information about the scope and timing of this rulemaking during informational items provided at commission meetings in April and May 2022.

DEQ provided a status update to the EQC in March 2023, which included an overview of the watershed conditions, TMDL elements and discussion topics during engagement with the community, local and technical advisory groups, designated management agencies, rule advisory committee and Tribes.

Advisory committee

Background

DEQ convened an Upper Yaquina TMDL Rulemaking Advisory Committee, which met three times between August 2022 and March 2023. The committee’s purpose was to advise DEQ on the economic and fiscal impacts and benefits of the proposed TMDLs and Water Quality Management Plan for the communities they represent.

DEQ appointed members from organizations that represent and coordinate the interests of multiple, diverse communities likely to be affected by the rules, as shown in the table below. The committee web page contains meeting agendas, presentations, materials, summaries and committee member input and is located at: [Upper Yaquina TMDL](#)

The committee members were:

Upper Yaquina TMDL Advisory Committee Membership			
Name	Affiliation	Title or Role	Interest Represented
Rebecca McCoun	Oregon Department of Forestry - Forest Resource Division	Riparian and Aquatic Specialist	State Agency
Paul Engelmeyer	Wetlands Conservancy	Land manager	Conservation
Cheryl Hummon/Olivia Jasper	Oregon Department of Agriculture - Water Quality Program	Riparian specialist/MidCoast specialist	State Agency
Randy Hereford	Starker Forests	Manager	Commercial Timber owner
Mark River	Weyerhaeuser Co	Hydrologist	Commercial Timber owner
Evan Hayduk	Mid-Coast Watersheds Council	Executive Director	Oregon Plan for Salmon and Watersheds
Onno Husing (alternate)	Lincoln County	Department of Planning and Development Director	Local Government
Roy Kinion	Lincoln County	Public Works Department Director	Local Government
Alan Fujishin	Lincoln Soil and Water Conservation District	Director Zone 2, Board Vice Chair	Special District
Glen Spain	Pacific Coast Federation of Fishermen's Associations	Director	Commercial fishing
Joe Steere	Small Woodlands Association	Lincoln Co. representative	Small Woodlands, Agriculture

	Lincoln County Farm Bureau		
Mike Kennedy	Confederated Tribes of the Siletz Indians	Natural Resources Manager	Tribal Nation
Greg Verret	Benton Co Community Development	Deputy Director for Policy & Program Development	Local Government
Russ Glasscock	Local landowner	Local landowner	Agriculture/small woodlot
Matthew Koon	Genesee & Wyoming Inc (parent company of Portland & Western Railroad)	Director of Safety and compliance	Transportation - Railroad

Meeting notifications

To notify people about the advisory committee's activities, DEQ:

- Sent GovDelivery bulletins, a free e-mail subscription service, to the following lists:
 - Rulemaking
 - Total Maximum Daily Loads
 - Nonpoint Source
- Posted meeting information and materials on the web page for this rulemaking
- Added advisory committee announcements to DEQ's calendar of public meetings at [DEQ Calendar](#).

Committee discussions

In addition to the recommendations described under the Statement of Fiscal and Economic Impact section above, the committee reviewed presented material and the proposed draft documents (listed in the Supplemental Documents section below) and provided input. Material presented and discussed with the committee included: the rulemaking process and timeline; the committee charter; the TMDL process; the Upper Yaquina River Watershed geography and water quality conditions; bacteria and dissolved oxygen pollutant analyses; assessment of pollutant sources; pollutant reduction strategies; revisions to draft documents based on input from the committee and other entities responsible for implementation of pollutant reduction strategies and implementation tools and expectations.

Committee meetings were open to the public. Verbal committee input was received at the meetings and written input and reference materials were received during the month that followed each meeting. All committee input was compiled and posted on the rulemaking webpage.

For additional information on advisory committee presentations and meeting summaries, see the advisory committee section of the rulemaking page: [Upper Yaquina TMDL](#).

Public engagement

Public notice

DEQ provided notice of the proposed rulemaking and rulemaking hearing by:

- On May 12, 2023, DEQ sent a notice of the public hearing to approximately 24,713 interested parties on the following DEQ lists through GovDelivery:
 - Rulemaking
 - DEQ Public Notices
 - Total Maximum Daily Loads
 - Nonpoint Source
- May 11, 2023, Filing a notice with the Oregon Secretary of State for publication in the June 2023 Oregon Bulletin;
- Posting the Notice, Invitation to Comment and Draft Rules on the web page for this rulemaking, located at: [Upper Yaquina TMDL](#).
- Emailing advisory committee members,
- Emailing the following key legislators required under [ORS 183.335](#):
 - State Sen. Jeff Golden, Chair, Senate Committee on Natural Resources
 - State Sen. Fred Girod, Vice-Chair, Senate Committee on Natural Resources
 - State Rep. Ken Helm, Chair, House Committee on Agriculture, Land Use, Natural Resources and Water
 - State Rep. Mark Owens, Vice-Chair, House Committee on Agriculture, Land Use, Natural Resources and Water
 - State Rep. Annessa Hartman, Vice-Chair, House Committee on Agriculture, Land Use, Natural Resources and Water
 - State Rep. David Gomberg, House District 10
 - State Sen. Dick Anderson, Senate District 5
- Posting on the DEQ event calendar: [DEQ Calendar](#)

DEQ considered all comments and testimony received before the closing date. All comments and response to comments are summarized in this report..

Public hearing

On June 29, 2023, DEQ held an information session with question and answer period, immediately followed by public hearing. DEQ received no comments at the hearing. Later sections of this document include a summary of the written comments received during the public comment period, DEQ's responses, and a list of the commenters. Original comments are on file with DEQ.

Presiding officer's record

Hearing 1

Date	June 29, 2023
Place	Virtual Zoom Meeting
Start Time	2:35 p.m.
End Time	3:08 p.m.
Presiding Officer	Bob Barrows

Presiding officer

The presiding officer convened the hearing, summarized procedures for the hearing, and explained that DEQ was recording the hearing. The presiding officer asked people who wanted to present verbal comments to sign the registration list, or if attending by phone, to indicate their intent to present comments. The presiding officer advised all attending parties interested in receiving future information about the rulemaking to sign up for GovDelivery email notices.

As Oregon Administrative Rule 137-001-0030 requires, the presiding officer summarized the content of the rulemaking notice.

Two people attended the informational and question and answer session by webinar. No person attended the hearing or presented any oral testimony or written comments.

Summary of public comments and DEQ responses

Public comment period

DEQ accepted public comment on the proposed rulemaking from May 12, 2023, until 4 p.m. on July 11, 2023. DEQ received two comment letters from three individuals or organizations during the comment period, which included seven topics. All comments were submitted by email. The comments were supportive of the rulemaking with specific suggestions around water quality protections and TMDL approval by EPA.

Below is this list of commenters, their affiliations and comment topics by number.

First Name	Last Name	Organization	Comment Number(s)
Jennifer	Wu	US EPA - Region 10	1-6
Paul	Engelmeyer	Wetlands Conservancy	7
Suzanne	Fouty	retired USDA Forest Service	

Below are summaries of comments received by the deadlines with DEQ's responses. Original comments are on file with DEQ.

Comment Number and Topic	Comment Description	DEQ Response	Response Type
1. Protection plan section needed	<p>Create a new section in the TMDL document delineated as the protection plan that refers to analysis with the documents that satisfies the core elements of a protection plan, as described on EPA's website and Protection Plan FAQ:</p> <ul style="list-style-type: none"> - Identification of specific waters to be protected and risks to their condition - Activities proposed and/or implemented that are expected to resist degradation or impairment of these waters, or improve water quality (e.g., quantification of loading or assimilative capacity) - Timeframes over which a protection target condition is expected to be attained, maintained, or improved - Quantitative and qualitative measures of expected success and planned responses to observed changes in risks or condition 	<p>DEQ appreciates EPA Region 10's support for inclusion of a protection plan within the watershed-wide TMDLs and DEQ included a new section in the TMDLs document with references to where information supporting the four core elements of a protection plan can be found.</p>	<p>We made changes to address this comment.</p>

Comment Number and Topic	Comment Description	DEQ Response	Response Type
2. Reasonable Assurances	Include a clarified federal definition of Reasonable Assurances in the TMDL document or reference to it in the WQMP	DEQ appreciates EPA support for TMDL implementation and the suggestion to refer to the more comprehensive write-up on reasonable assurances that is included in the WQMP, as a required elements per OAR 340-042-0040(4)(1)(J). At EPA's earlier suggestion, DEQ included a summary of the reasonable assurance write-up from the WQMP in the TMDL. However, as evidenced by this comment, DEQ finds that repeating abridged information from one rule document (WQMP) in another (TMDL) introduces confusion. For better governance, DEQ removed the summary from the TMDL document and provided only the DEQ rule and EPA guidance citations, with a reference to the comprehensive write-up on reasonable assurance in the WQMP.	We made changes to address this comment.
3. Assessment Unit error	OR_SR_1710020401_02_10 5953 Little Elk Creek to Sloop Creek for year-round DO is Category 2 on the 2022 Integrated Report, but is listed as Category 3 in the TMDL documents	DEQ corrected the status of this AU and added a footnote to Table 3.1 in the TMDL document and Table 3.3.1a in the Technical Support Document, along with a reference to the analysis to better explain that the TMDL analysis reached a different conclusion (Category 5) than the assessment analysis used in the Integrated Report.	We made changes to address this comment.
4. Monitoring strategy surrogates	All surrogates to support monitoring strategies should be identified in the WQMP	OAR 340-042-0040(4)(1) lists the required elements of the Water Quality Management Plan, which include identification of persons responsible for monitoring and the plan and schedule for reviewing monitoring information and revising the TMDL. DEQ is developing a detailed, stand-alone monitoring strategy to be completed following issuance of the TMDL and consultation with partners. DEQ intends to identify all surrogates that would be useful in measuring progress of TMDL implementation in that strategy.	We did not make changes to address this comment.

Comment Number and Topic	Comment Description	DEQ Response	Response Type
5. ODF data collection	Section 5.1.1 of the WQMP should require ODF to collect data to demonstrate the effectiveness of bacteria, phosphorus, and solar reduction.	OAR 340-042-0040(4)(1) lists the required elements of the Water Quality Management Plan, which include identification of persons responsible for monitoring and the plan and schedule for reviewing monitoring information and revising the TMDL. DEQ is developing a detailed, stand-alone monitoring strategy to be completed following issuance of the TMDL and consultation with partners. As noted in Section 6.1 of the WQMP "ODF will be invited to participate or collaborate with other DMAs and partners to develop a water column monitoring plan." In addition, like other DMAs and responsible persons, ODF will develop an approvable implementation plan and annually report on effectiveness of ODF implementation efforts. DEQ expects these annual reports to include a range of data and information specific to effectiveness of the management strategies listed in Table 5.1.1 of the WQMP, and/or others ODF documents are appropriate for reducing phosphorus and solar loads. The TMDL did not find that ODF, or activities under ODF jurisdiction, was a source of bacteria and the WQMP did not identify any priority management strategies for ODF to implement to reduce bacteria. For these reasons, DEQ did not make revisions to impose a more specific requirement on ODF for data collection to demonstrate the effectiveness of strategies to reduce bacteria, phosphorus, and solar radiation.	We did not make changes to address this comment.
6. Units omission	Add units for riparian buffers in WQMP, pg 19, Table 5.1.2a. The TMDL column reads "For Riparian Areas (within 100 of stream bank)."	DEQ appreciates EPA pointing out this omission error in the table, Source or activity column, which has been corrected to read "For Riparian Areas (within 100- feet of stream bank)"	We made changes to address this comment.
7. Beaver reestablishment	Add beaver watershed roles, impacts and reestablishment articles to the administrative record	DEQ appreciates the compilation of relevant studies that (a) identify the role of beavers in watershed processes, and (b) may be useful for planning and implementation of the beaver reestablishment management strategy. DEQ included a short write up about this management strategy and the bibliography of provided literature in the TMDLs Technical Support Document. DEQ anticipates directing implementers to this literature during implementation plan development or revision, as well as referring to the literature during DEQ's TMDL progress evaluations and adaptive management process.	We made changes to address this comment.

Implementation

Notification

If adopted, the proposed rules will become effective upon filing on approximately September 18, 2023. Per OAR 340-042-0060(4), within 20 business days of adoption by EQC, DEQ will notify affected parties and persons who provided formal comment on the draft rules that the TMDL was issued and that responses to comments are available. DEQ will also be in regular contact with responsible persons, including designated management agencies on development of approvable TMDL implementation plans, as required in the Water Quality Management Plan.

Compliance and enforcement

Implementation of the TMDLs rules will proceed as described in OAR 340-042-0080 and in the Water Quality Management Plan. Compliance and enforcement of TMDLs is described in OAR 340-012-0053 and OAR 340-012-0055. DEQ staff will continue to coordinate with DEQ's Office of Compliance and Enforcement on applying and updating, as needed, DEQ's enforcement guidance.

Measuring, sampling, monitoring and reporting

The Water Quality Management Plan describes planned monitoring and reporting, including the plan to develop a collaborative, overarching assessment and monitoring strategy to periodically evaluate progress on achieving the goals of the TMDL.

Systems

The rules and supporting documents will be posted to DEQ's website, which will periodically be updated, as needed.

Training

DEQ staff will continue to provide outreach and technical assistance to affected parties and DEQ will schedule internal trainings, as needed.

Five-year review

Requirement

Oregon law requires DEQ to review new rules within five years after EQC adopts them. The law also exempts some rules from review. DEQ determined whether the rules described in this report are subject to the five-year review. DEQ based its analysis on the law in effect when EQC adopted these rules.

Exemption from five-year rule review

None of these proposed rules are exempt from the five-year review under ORS 183.405(4) and 183.405 (5) of the Administrative Procedures Act.

Five-year rule review required

No later than Sept. 15, 2028 DEQ will review the newly adopted rule for which ORS 183.405 (1) requires review to determine whether:

- The rule has had the intended effect
- The anticipated fiscal impact of the rule was underestimated or overestimated
- Subsequent changes in the law require that the rule be repealed or amended
- There is continued need for the rule.

DEQ will use “available information” to comply with the review requirement allowed under ORS 183.405 (2).

DEQ will provide the five-year rule review report to the advisory committee to comply with ORS 183.405 (3).

Accessibility information

Translation or other formats

[Español](#) | [한국어](#) | [繁體中文](#) | [Русский](#) | [Tiếng Việt](#) | [العربية](#)

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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](#).

Supporting document

Although not proposed for adoption, by reference, into rule, the Upper Yaquina River Watershed TMDL Technical Support Document is provided as Attachment D. This document will also be available on DEQ's website to support information presented in the TMDLs and WQMP.

Materials for adoption

- **Attachment A** – Draft Rule (OAR 340-042-0090)
- **Attachment B** – Upper Yaquina River Watershed Total Maximum Daily Loads for Bacteria and Dissolved Oxygen
- **Attachment C** – Upper Yaquina River Watershed Water Quality Management Plan