



**Memorandum of Understanding:
Oregon Department of Forestry – Oregon
Department of Environmental Quality
Collaboration on Achieving Water Quality Goals**



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I. Introduction

I.1 Vision

Where rivers, streams and lakes are clean, we will continue to protect them. Where they are not, we will identify why, and work collaboratively to make the changes needed to improve water quality. We recognize that both regulatory and non-regulatory measures are needed to restore our waterways, and that changes on the ground will take years to show results.

At the same time, we also recognize that our climate is warming quickly and that our environment is under increasing stress, as evidenced by the continuing decline of many fisheries toward extinction. As a result, our work is urgent. We must work deliberately, based on science, but efficiently. To succeed we need clear objectives, regular monitoring and reporting, and accountability to require further actions if we are not making sufficient progress.

I.2 Purpose

The purpose of this MOU is to describe how the Agencies will work together to protect clean water on non-federal forestlands that already have high quality waters, and to improve water quality on waterways that are not meeting water quality standards.

The Oregon Department of Environmental Quality (DEQ) and the Oregon Department of Forestry (ODF) (collectively, the Agencies) each have responsibilities for protecting and restoring water quality on non-federal forestlands in Oregon. These responsibilities originate in both federal and state law. Broadly speaking, the federal Environmental Protection Agency (EPA) has delegated implementation of the federal Clean Water Act (CWA) in Oregon to DEQ. As a result, DEQ is responsible for setting water quality standards, identifying where those standards are or are not being met, and carrying out programs to improve water quality where needed. The Oregon legislature has directed ODF to carry out the state Forest Practices Act (FPA) to accomplish a variety of purposes, including protecting water quality. As a result, the Agencies must work together to meet their respective but related responsibilities. This agreement updates and replaces the 1998 Memorandum of Agreement between the Agencies concerning water quality on non-federal forestlands; it does not alter any statutory or rule requirement governing either agency's responsibilities. This agreement reflects written legal advice from the Oregon Department of Justice dated March 2, 2021, which is included as Appendix 1.

I.3 Considerations and Limitations

DEQ and ODF are party to other agreements that address water quality-related activities. In addition, the Agencies each are developing new policies on important topics such as climate change, wildfires, and drinking water protection.

This MOU is not intended to cover every aspect of the nexus between forestry and water quality, or to replace the following agreements or supersede existing statutory or regulatory requirements.

1. Land use conversions (for more information, see ODF *et al.*, 2006)
2. Pesticide Analytical and Response Center (for more information, see PARC, 2006)

II. Interagency Coordination

II.1 Principles of Interagency Coordination

The Agencies will use the following principles in working together to protect and improve water quality:

1. A commitment to collaboration.
2. Freely sharing information and expertise.
3. For transparency, explicitly documenting how each agency uses information and analyses provided by the other agency.
4. Adherence to all relevant state and federal laws, including those governing cultural resources.

5. Striving toward achieving efficiency and limiting redundancy in the work that the Agencies do to protect water quality.
6. Using available data, scientific information, uncertainty, and accepted scientific methods.
7. A commitment to use our respective programs to protect clean water, and to improve water quality where standards are not being met, including:
 - a. Continued progress to achieve conditions on the ground needed to improve water quality, even where uncertainty exists; and
 - b. Adaptive management informed by data and scientific information.

II.2. DEQ-Led Water Quality Processes

1. Water Quality Standards Revisions

DEQ, acting through the EQC, is required by federal law to establish water quality standards to protect designated and existing beneficial uses. Water quality standards are adopted as rules by the EQC, but also must be approved by EPA. In addition, the EQC must periodically review and revise the standards if needed to protect beneficial uses of water.

DEQ conducts public processes at several points during the water quality standards revision and adoption process. First, DEQ broadly solicits public input on what its priorities should be for changes to standards, which are made through the triennial review process. Following informal input and review by EPA, DEQ and the EQC carry out changes through rulemaking. This process includes, at a minimum, an advisory committee, preparation of a fiscal impact statement, and public notice and comment, including a public hearing. DEQ includes persons and communities likely to be affected by the changes on its advisory committees. DEQ frequently includes other state and federal agencies in advisory committees, particularly where the rulemaking may have an effect on that agency's programs.

DEQ will consult with ODF regarding priorities for revisions to water quality standards during the initial phase of the triennial review.

DEQ will provide an opportunity for ODF to participate on the EQC rules advisory committees for water quality standards revisions where the proposed revisions have a nexus with forestry-related activities.

2. Integrated Report

Every two years, DEQ prepares a statewide assessment of water quality as required by sections 305(b) and 303(d) of the federal CWA. The Integrated Report identifies segments of rivers, streams, estuaries and other water bodies where water quality standards are not being met, where programs are needed to improve water quality, and priorities for developing clean water plans called Total Maximum Daily Loads or TMDLs. The Integrated Report is submitted to EPA for its review and approval.

DEQ will consult with ODF regarding revised or new methodologies used to evaluate water quality prior to development of the Integrated Report.

DEQ will consult with ODF in advance of actions seeking input and data for the Integrated Report, including the data solicitation window.

DEQ will consult with ODF regarding draft assessment conclusions.

3. Section 319 Program: Plan and annual reporting

The Oregon Nonpoint Source Management Program Plan (NPS Plan) describes the state's goals, priorities, objectives, and strategies for preventing, controlling, and eliminating pollution from nonpoint sources, including forestry activities.

The NPS Plan includes measures needed to meet water quality standards and established limits on nonpoint source pollution set by TMDLs.

EPA requires the NPS Plan to be updated every five years and submitted to EPA for approval. The NPS Plan and NPS annual report approvals are required by the CWA. When revising Oregon's NPS Plan, DEQ will consult with ODF regarding elements of the plan and the annual reports that relate to non-federal forestlands. The input sought from ODF includes review of draft descriptions and requests for data and information for inclusion, as appropriate.

4. TMDL Development and Implementation

4.1. TMDL Development, Generally

For water bodies that do not meet water quality standards, and that are prioritized for further planning and programmatic actions to improve quality, DEQ develops a TMDL and a Water Quality Management Plan (WQMP). TMDLs include decisions about how much pollution must be reduced from both point sources, such as wastewater treatment plants, and from non-point sources, such as private forest operations. When developing or revising a TMDL, DEQ forms a TMDL local advisory group or a rules advisory committee that includes people and communities likely to be affected by the rules.

DEQ will request that ODF participate in TMDL committees when the TMDL includes non-federal forestlands. In addition, DEQ and ODF will meet at least once every two years to discuss upcoming priorities for TMDL development, which will allow for early and regular collaboration.

4.2. Development of TMDLs other than Temperature TMDLs Addressed in 4.3

When DEQ is developing a TMDL that will include load allocations for non-federal forestlands the Agencies will engage and collaborate during the initial stages of development as described in a. and b. below.

During planning for the development of a particular TMDL, ODF and DEQ will confer regarding existing monitoring or research data that ODF has access to regarding the condition of water quality on non-federal forestlands, and ODF will make such data available to DEQ if the data are relevant to the TMDL being developed, the TMDL load allocations, or the WQMP. DEQ and ODF also will confer regarding any additional data the Agencies believe may be necessary to assess whether existing generally applicable FPA rules are adequate to meet TMDL load allocations for non-federal forestlands.

a. During the initial stages of TMDL and WQMP development, DEQ will inform ODF of:

- i. The area or geographic extent that will be covered by the TMDL.

- ii. The water quality standards and 303(d) listings and impairments to be addressed.
- iii. The models and analytical methods that DEQ expects to use for TMDL development.
- iv. The existing data that DEQ expects to use and additional data that may be sought in development of the TMDL, including development of TMDL load allocations for non-federal forestlands.

b. During the subsequent stages of development of a TMDL that DEQ expects will include TMDL load allocations for non-federal forestlands, DEQ and ODF will confer regarding:

- i. Review of model calibration results.
- ii. Discussion of uncertainty and variability.
- iii. Model validation as appropriate (type of model, data availability, etc.).
- iv. TMDL model scenarios set up to identify sources, evaluate proposed allocations, and determine implementation options.
- v. Potential surrogate measures that identify landscape or water segment conditions likely to achieve TMDL load allocations.

During the TMDL and WQMP development, DEQ will make a preliminary determination regarding whether generally applicable Forest Practices Act (FPA) rules are adequate to achieve TMDL load allocations on non-federal forestlands. If DEQ makes a preliminary determination that additional measures are needed to achieve a load allocation, DEQ will identify the river, stream segment or types of conditions along with an estimate of the additional load reduction needed. In addition, DEQ will seek technical and programmatic input from ODF on additional regulatory or non-regulatory measures that are technically feasible and that could be implemented by rule revisions, stewardship agreements, incentive programs or other means and that, if implemented, would provide reasonable assurance to achieve the applicable TMDL load allocations. In cases where a TMDL is being adopted by rule, the final determination regarding adequacy of generally applicable FPA rules will be made by the EQC. If the DEQ or EQC determination is that the generally applicable FPA rules are not adequate to achieve the TMDL load allocations, ODF or the Board of Forestry will be given an opportunity to either revise the FPA rules or develop a TMDL implementation plan that includes additional measures. Implementation plans are subject to review and action by DEQ as to addressing TMDL allocations.

See Appendix 3 for a more detailed visual representation of the Agencies' collaboration on TMDL development, implementation and adaptive management.

4.3. Development of revised temperature TMDLs pursuant to court schedule

DEQ and EPA are under a court-ordered schedule for revising existing temperature TMDLs in 15 project areas around the state. See Appendix 2 to this agreement for the schedule by which DEQ and EPA will coordinate in carrying out these revised TMDLs. This expedited schedule requires a streamlined process for collaboration between DEQ and ODF for these particular TMDLs.

The steps to update the temperature TMDLs will follow the elements described in section 4.2. to the extent practicable. However, DEQ will not be able to incorporate additional data into the

development of the TMDLs or WQMPs. DEQ will inform and solicit input from ODF regarding DEQ's analysis as described in 4.2.b., although that engagement will necessarily be limited.

4.4. TMDL Implementation

The WQMP is the framework for TMDL implementation and is designed to work in conjunction with implementation plans provided by Designated Management Agencies (DMAs) and other responsible persons. ODF may propose additional measures to achieve TMDL load allocations in an implementation plan. Implementation plans are subject to DEQ review and approval. If DEQ does not approve an implementation plan it may specify additional measures needed for approval, or may request that the EQC petition the Board to adopt additional measures. The WQMP and implementation plan commitments constitute DEQ's federally-required reasonable assurance demonstration that the TMDL will be implemented, and that TMDL load allocations will be achieved. Reasonable assurance is a CWA requirement and is considered by EPA in its review.

TMDL implementation plans can take several forms:

- a. An existing "plan" or program, such as a Habitat Conservation Plan approved by the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service, a state forest management plan, a stewardship agreement, area-specific supplemental Forest Practice Act rules of the Board, multi-party landowner agreements, or other existing measures specific to non-federal forestlands. DEQ will document either geographically or describe the particular waterbody types or fact sets where current actions to carry out the "plan" satisfies the TMDL load allocation or is expected to achieve the TMDL load allocation with implementation over time. DEQ will also identify geographies or fact sets within the TMDL project area not covered by the plan or where the plan does not sufficiently address the TMDL load allocation, if any.
- b. A new plan or program may be proposed where existing measures are not adequate. If a new plan or program is needed, DEQ will confer with ODF to specify in the TMDL and/or WQMP the changes in environmental conditions that must be attained to meet applicable TMDL load allocations.

If DEQ or the EQC determine that generally applicable FPA regulations are not adequate to meet a TMDL load allocation, then ODF will prepare an implementation plan including additional measures designed to meet the applicable TMDL load allocations and submit it to DEQ for review. Generally, the implementation plan will be submitted within 18 months of DEQ's issuance of the TMDL and WQMP, with the submittal timeframe specified in the WQMP.

II.3. ODF-Led Water Quality Processes

1. Non-regulatory and incentive-based programs

Non-regulatory programs (including incentive-based) as a supplement to regulatory programs are key to successfully achieving water quality goals. Implementing measures, with certainty, to attain the predicted outcomes identified to achieve water quality standards and reach TMDL load allocations is important to maintain and improve water quality. The Board and ODF encourage the use of non-regulatory measures where feasible. In addition, the FPA already has models of incentives for non-regulatory practices (e.g., OAR 629-642-0300). ODF will therefore expand implementation of non-regulatory measures, with incentives where possible, as a potential tool to achieve water quality standards and TMDL load allocations on non-federal, non-tribal

forestlands using its authority and direction from the Board. These measures will also be designed to provide reasonable assurance of implementation.

2. Water Quality Standards and TMDLs: Implementation Evaluation and Reporting

ODF and DEQ concur that the focus of implementation of TMDLs and water quality standards will occur at the program-wide level to the greatest extent possible, for both regulatory (i.e., FPA) and non-regulatory measures. There will likely be instances (e.g., for certain TMDLs) where basin-specific implementation may be the best option, which the Agencies will determine as the need arises. ODF will enhance policies and practices for implementation measures through stakeholder input and/or adjustments in agency priorities. ODF will then report the implementation of regulatory and non-regulatory measures to DEQ on a regular basis.

3. FPA Sufficiency Reviews

ODF has longstanding policy and rules on reviewing sufficiency of FPA rules to meet goals, including protection of water quality. DEQ will continue to be invited to participate in external review teams for soliciting input and seeking clarity and transparency for sufficiency reviews. For water quality-related rules, ODF completes these reviews using a variety of information sources such as literature reviews, field studies, and information from TMDL analyses, and with input from partner agencies. For FPA sufficiency reviews, TMDL information would be requested from DEQ that aligns with analysis at a site or reach level. ODF staff brings this information to the Board for their decisions on sufficiency of these rules to meet desired goals. If the Board finds the rules are insufficient at protecting water quality, there are several findings required to make changes to rules. In such instances, ODF and the Board coordinate with DEQ and the EQC to change the rules.

4. Basin-specific Rules

If the Board determines based on evidence that forest practices in a watershed are measurably limiting achievement of water quality, it will appoint an interdisciplinary task force to analyze conditions in a watershed and recommend watershed-specific practices to ensure water quality achievement. The task force should rely on the findings and analysis used by the EQC in establishing the water quality standards and any approved TMDLs for the waterbody.

III. Mechanics of MOU

III.1 MOU Implementation

The Agencies are committed to carrying out their commitments and implementing the processes described in this MOU. The Agencies anticipate that implementation of this MOU will result in additional clarity and detail for these new, complex interactions, the details of which cannot be developed *a priori*. To ensure such processes are documented and transparent both within the Agencies and to the public, the Agencies will document these processes as they are developed. This documentation will be added to the MOU as addendums and be made available to the public.

III.2 MOU Amendment and Review processes

The Agencies will periodically evaluate progress on implementation of this MOU and report on it to the Board and EQC, the meetings of which provide a public forum for increased

transparency. The Agencies will review this MOU every five years, or sooner if agreed upon by the Agencies. No amendments may be made to this agreement without the express written agreement of both Agencies.

III.3 Dispute Resolution

Regarding water quality goals, the Agencies are committed to working together with the intent to resolve issues at the staff level in a timely manner. If issues cannot be resolved, elevation of specific disagreements within the Agencies' will occur as follows:

- If issues cannot be resolved at the staff and manager levels, managers will raise the issue to the Director and State Forester.
- The Director and State Forester will meet to provide direction to reach resolution before invoking options outlined in statute.

If resolution is not reached within the Agencies, state statutes lay out processes whereby the Board may request that the EQC review any water quality standard that affects forest operations on forestlands. Similarly, in the instance that DEQ determines that existing Board rules or any other measures proposed to reduce pollution from these forestry activities (which may include voluntary actions as well as regulatory changes) are inadequate to achieve water quality standards, DEQ will initiate the petition process set forth in state statute by asking the EQC to petition the Board to revise its rules to protect water quality on forestlands.



Date: Dec 9, 2021

Calvin Mukumoto, State Forester
Oregon Department of Forestry



Date: 12/9/2021

Richard Whitman, Director
Oregon Department of Environmental Quality

References

ODF, ODA, DSL, ODFW, OPRD, DLCD, DEQ. 2006. Memorandum of Agreement (MOA), Conversions of Forestland.

PARC. 2006. Memorandum of Agreement (MOA) between Oregon Pesticide Analytical and Response Center (PARC) and Oregon Department of Forestry.

Appendix 1

ELLEN F. ROSENBLUM
Attorney General



FREDERICK M. BOSS
Deputy Attorney General

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION

MEMORANDUM

DATE: March 2, 2021

TO: Peter Daugherty, State Forester, Department of Forestry
Richard Whitman, Director, Department of Environmental Quality

FROM: Matt DeVore, Assistant Attorney General, Natural Resources Section
Diane Lloyd, Assistant Attorney General, Natural Resources Section

SUBJECT: Authority to Protect Water Quality on Forestlands

Question presented:

What are the respective authorities and obligations of the Environmental Quality Commission and the Board of Forestry for the protection of water quality on forestland? ¹

Short answer:

The Environmental Quality Commission (Commission) is charged with protecting the quality of waters of the state and with administering the federal Clean Water Act (CWA) in Oregon. This responsibility includes establishing water quality standards to protect beneficial uses of waters, issuing permits and certificates that limit water pollution, and (in areas where water quality standards are not met) overseeing development and implementation of plans to further limit pollution from all sources in order to improve water quality so that standards are met in the future. These plans, known as "Total Maximum Daily Loads" or "TMDLs" identify the amounts of pollution that can occur from particular sources in order to achieve water quality standards. If pollution reductions are needed from particular sources in order to improve water quality and meet standards, they are achieved through limits and requirements in permits and certificates (for point sources), and through implementation plans (for non-point sources, such as forest

¹ Public disclosure of this Memorandum is not intended to operate as a waiver of the attorney-client privilege. The Attorney General provides advice and representation to the Governor, any officer, agency, department, board or commission of the state or any member of the legislature. The Attorney General may not render opinions or give legal advice to persons other than the state officers listed above. Any opinions or conclusions in this memo are not intended to be advice, except as provided in ORS 180.060.

operations). To approve TMDLs, the Department of Environmental Quality (DEQ) (or the Commission), and then the federal Environmental Protection Agency (EPA), must conclude that these management actions (carried out through permits and certificates issued by DEQ), and implementation plans (which are normally prepared by other governmental entities and approved by DEQ), are likely to be implemented to achieve water quality standards.

The Board of Forestry (Board) is obligated to establish best management practices and forest practice rules to ensure that, to the maximum extent practicable, nonpoint source discharges of pollutants resulting from forest operations on forestlands do not impair the achievement and maintenance of water quality standards set by the Commission. This obligation includes two elements, first, maintaining the water quality of water bodies that already meet those standards, and second, the implementation of plans (including TMDL implementation plans) to improve the water quality of water bodies that do not meet the standards. In considering forest practice rules, the Board also must make a series of determinations related to the need, effectiveness and impacts of the proposed rules.

Discussion

Environmental Quality Commission and Department of Environmental Quality

The Commission has controlling authority for regulating water pollution.² Under the direction of the Commission, the legislature charged DEQ with taking such actions as are necessary for the prevention of new pollution and the abatement of existing pollution.³ The legislature charged the Commission with the obligation to adopt water quality standards and to take other steps necessary to implement the CWA in Oregon.⁴ Water quality standards, if approved by EPA, have the effect of federal law.⁵ If the EPA does not approve the standards, the EPA must develop and adopt standards that would apply to Oregon's water bodies.⁶

Water quality standards consist of three components: a designated use or uses for the water body, water quality criteria based upon such uses and antidegradation requirements.⁷ One of the designated uses that frequently creates a limiting factor relevant to forestry operations is native cold water dependent aquatic species, such as salmon and trout. Water quality standards include the water quality criteria and policies to protect these designated uses. In the case of temperature, the criteria are made up of numeric and narrative elements, including (a) biologically-based numeric criteria (for example, with temperature, a 7-day average of the daily

² ORS 468B.010.

³ ORS 468B.020(2).

⁴ ORS 468B.048, ORS 468B.035. *See also* Clean Water Act, 33 USC §1251 et seq.

⁵ 33 USC §1313(c)(3).

⁶ 33 USC § 1313(c)(4); 40 CFR § 131.22.

⁷ 40 CFR § 131.3(i), 40 CFR § 131.6.

maximum stream temperature)⁸; and (b) a narrative criterion or criteria (for example, no increase in temperature is allowed that would reasonably be expected to impair cool water species).⁹ The temperature standard also includes an anti-degradation requirement, designed to prevent high-quality waters that meet the biologically-based numeric criteria from being degraded (for example, the protecting cold water standard that limits temperature increases from all sources taken together to 0.3 degrees Celsius).¹⁰

Every two years, DEQ must assess water quality throughout the state and report to the EPA on the condition of Oregon's waters. DEQ prepares an Integrated Report that meets the requirements of CWA sections 305(b) and 303(d). Section 305(b) requires a report on the overall condition of Oregon's waters. Section 303(d) requires DEQ to identify waters that do not meet water quality standards. If a waterbody fails to meet one or more water quality standards, DEQ is required to identify the amounts of pollution coming from different sources, and determine what reductions are necessary in order for the applicable standard to be met. This determination is called a Total Maximum Daily Load (TMDL).¹¹ CWA section 303(d) requires that a TMDL be "established at a level necessary to implement the applicable water quality standard." Federal and state regulations define a TMDL as the sum of the wasteload allocations (allowable pollutant loads from point sources), load allocations (allowable pollutant loads from nonpoint sources), and background."¹² The TMDL identifies the amounts of pollutants that a water body can receive and still meet water quality standards.

Where a pollutant is highly variable or difficult to measure directly, a TMDL may use surrogate measures as an additional means to express allocations.¹³ One example, particularly important for nonpoint sources such as farm and forestry operations, is the use of riparian shade as a surrogate measure for temperature TMDLs. EPA regulations allow TMDLs to be "expressed in terms of either mass per time, toxicity, or other appropriate measure."¹⁴ For TMDLs for water bodies that do not meet temperature standards, DEQ typically determines nonpoint source heat loads by analyzing current shade levels relative to the amount of shade likely to occur without operations impacting shade cover in riparian areas. Under this analysis, DEQ is able to correlate shade levels needed along particular stream segments within sub-basins (fourth order hydrologic units set by the U.S. Geological Service, such as the Imnaha subbasin of the Grande Ronde in eastern Oregon, and the Applegate subbasin of the Rogue basin in western Oregon) in order for biologically-based numeric criteria to be met.¹⁵

⁸ See, e.g. OAR 340-041-0028(4)(a), limiting temperature to 13 degrees Celsius for certain streams at certain times of the year.

⁹ OAR 340-041-0028(9)(a).

¹⁰ OAR 340-041-0028(11).

¹¹ 33 USC § 1313(d); ORS 468B.110.

¹² 40 CFR 130.2(i); OAR 340-042-0040(4)(b).

¹³ OAR 340-042-0040(5)(b).

¹⁴ 40 CFR § 130.2(i).

¹⁵ See Willamette Temperature TMDL, Figure 4.17, p.4-71 and Appendix C, <https://www.oregon.gov/deq/FilterDocs/chpt4temp.pdf>.

TMDLs must be reviewed by EPA for consistency with federal requirements. In order to be approved by EPA the TMDL must be accompanied by a management plan that provides reasonable assurance that, when implemented, it will result in attainment of the relevant water quality standard.¹⁶ When a TMDL is developed for waters impaired by point sources only, the issuance of discharge permits to the point sources provides the reasonable assurance that the wasteload allocations in the TMDL will be achieved because federal regulations require that effluent limits in permits be consistent with wasteload allocations in applicable approved TMDLs.¹⁷ Where a TMDL is developed for waters impaired by both point and nonpoint sources, EPA evaluates whether nonpoint source reductions specified in the TMDL have a “reasonable assurance” of occurring. In its evaluation, EPA considers whether practices capable of reducing the specified nonpoint source pollutant loads: “(1) exist; (2) are technically feasible at a level required to meet allocations; and (3) have a high likelihood of implementation.”¹⁸ EPA’s requirement of reasonable assurance of implementation of load allocations for nonpoint sources was upheld by the United States Third Circuit Court of Appeals.¹⁹ Load allocations for nonpoint source pollution are often broad in nature and can be assigned to types or sectors of nonpoint sources such as all non-federal forest operations in a sub-basin.²⁰

As discussed, DEQ’s TMDLs are not water quality standards, but are the state’s primary plan for achieving the water quality standards in waterbodies where standards are not met.²¹ As noted above, the TMDL wasteload allocations for point sources are implemented through discharge permits issued by DEQ.²² For non-point sources, the TMDL allocations are implemented by designated management agencies (DMAs), such as cities, counties and other government agencies (including ODF for non-federal forestlands), as identified by DEQ in the TMDL.²³ DMAs develop TMDL implementation plans that may contain regulatory measures, non-regulatory measures, or both, and that are subject to review and approval by DEQ.²⁴

For non-federal forestlands, the Commission has adopted a specific TMDL implementation rule. This rule provides that “[n]onpoint source discharges of pollutants from forest operations on state or private lands are subject to best management practices and other control measures established by the Oregon Department of Forestry under * * * ORS 527.610 to 527.992 and according to OAR chapter 629, divisions 600 through 665.”²⁵ However, “[i]n areas where a

¹⁶ *EPA Guidance for Water Quality-based Decisions: The TMDL Process*, p. 24. April 1991.

¹⁷ 40 CFR 122.44(d)(1)(vii)(B).

¹⁸ *See, e.g.*, Environmental Protection Agency, EPA Chesapeake Bay TMDL. Section 7. Reasonable Assurance and Accountability, available at www.epa.gov/sites/production/files/2014-12/documents/cbay_final_tmdl_section_7_final_0.pdf.

¹⁹ *American Farm Bureau Federation vs. United States Environmental Protection Agency*, 792 F3d 281, 300-301 (2015).

²⁰ 40 CFR § 130.2(g).

²¹ 40 CFR § 130.7(c).

²² ORS 468B.050.

²³ ORS 468B.110(1).

²⁴ OAR 340-042-0040(4)(I)(G), OAR 340-042-0080(1).

²⁵ OAR 340-042-0080(2).

TMDL has been approved, site specific rules under the Forest Practices Act rules will need to be revised if [DEQ] determines that the generally applicable Forest Practices Act rules are not adequate to implement the TMDL load allocations.²⁶ If the Board fails to act following such a determination by DEQ, then DEQ must request that the Commission petition the Board for rule changes.²⁷ If the Commission made such a petition and the Board failed to adopt changes within two years,²⁸ the Commission could adopt by rule and enforce, or DEQ could adopt by order and enforce, source-specific requirements on forest operations in a sub-basin in order to comply with the TMDL requirements of section 303(d) of the federal Clean Water Act and the need to establish “reasonable assurance” of implementation.²⁹

State law provides that neither the Commission nor DEQ may adopt or enforce any effluent limitation upon nonpoint source discharges from forest operations, unless they are required to do so by the provisions of the CWA.³⁰ TMDL load allocations are not effluent limits as that term is defined in the context of the CWA to apply to limits on point source discharges of pollutants in discharge permits.³¹ Additionally, as discussed above, when a water body is not meeting water quality standards a TMDL is required by the CWA and therefore the state law limitation on the adoption of “effluent limitations” cannot be interpreted as a prohibition on adopting load allocations in the context of TMDL development.

Board of Forestry and Department of Forestry

The legislature delegated to the Board the responsibility to “supervise all matters of forest policy and management under the jurisdiction of the state.”³² The legislature provided the Board with exclusive authority to develop and enforce forest practice rules and the obligation to coordinate with other state agencies concerned with the forest environment.³³ The Board must adopt forest practice rules that provide for the overall maintenance of air quality, water resources, soil productivity, and fish and wildlife.³⁴ Specifically as to water quality, the Board must establish best management practices (BMPs) and forest practices rules to ensure that to the maximum extent practicable nonpoint source discharges of pollutants resulting from forest operations on forestlands do not impair the achievement and maintenance of water quality standards established by the Commission.³⁵ To establish best management practices the Board must adopt rules for forest practice that prevent or reduce pollution to waters of the state.³⁶

²⁶ *Id.*

²⁷ *Id.*

²⁸ ORS 527.765(3)(e).

²⁹ ORS 468B.110(1).

³⁰ ORS 468B.110(2).

³¹ 33 USC § 1311; 40 CFR § 122.2.

³² ORS 526.016.

³³ ORS 527.630(3).

³⁴ ORS 527.710(2).

³⁵ ORS 527.765(1).

³⁶ *Id.*

The legislature provided further direction to guide the Board's rulemaking process. When the Board enacts forest practice rules that are not specifically addressed in statute, it must do all of the following:

- Describe the purpose of the rule and the level of protection desired.³⁷
- Determine that there is monitoring or research evidence that documents that degradation of resources is likely.³⁸
- Determine that the proposed rule reflects available scientific information, the results of relevant monitoring and, as appropriate, adequate field evaluation at representative locations in Oregon.³⁹
- Determine that the objectives of the rule are clearly defined.⁴⁰
- Determine that the restrictions placed on forest practices as a result of adoption of the proposed rule:
 - Are to prevent harm or provide benefits to the resource or resource site for which protection is sought;⁴¹ and
 - Are directly related to the objective of the proposed rule and substantially advance its purpose.⁴²
- Determine that the availability, effectiveness and feasibility of alternatives to the proposed rule were considered, and the alternative chosen is the least burdensome while still achieving the desired level of protection.⁴³
- Determine that the benefits to the resource that would be achieved by adopting the rule are in proportion to the degree that existing practices are contributing to the overall resource concern.⁴⁴
- Prepare and make available to the public a comprehensive analysis of the economic impact of the proposed rule.⁴⁵

Current Board rules provide that if the Board determines that forest practices in a watershed are measurably limiting water quality achievement or species maintenance, and the water body in the watershed is either: (a) designated by the Commission as water quality limited, or (b) contains threatened or endangered aquatic species, the Board must appoint an interdisciplinary task force that includes representatives of forest landowners within the watershed and from appropriate state agencies.⁴⁶ The task force must analyze the conditions in the watershed and recommend

³⁷ ORS 527.714, ORS 527.714(4).

³⁸ ORS 527.714(5)(a).

³⁹ ORS 527.714(5)(c).

⁴⁰ ORS 527.714(5)(d).

⁴¹ ORS 527.714(5)(d)(A).

⁴² ORS 527.714(5)(d)(B).

⁴³ ORS 527.714(5)(e).

⁴⁴ ORS 527.714(5)(f).

⁴⁵ ORS 527.714(7).

⁴⁶ OAR 629-635-0120(2).

whether additional watershed-specific protection rules are needed.⁴⁷ The task force should rely on the findings and analysis used by the Commission in establishing the water quality standards and any approved TMDLs for the waterbody.

Forest operations must be conducted in full compliance with the rules and standards of the Commission.⁴⁸ If the operation is conducted in accordance with the Board's rules currently in effect, then an operator shall not be considered in violation of any water quality standard.⁴⁹ This is often referred to as a "BMP shield." The BMP shield can be lost if the Board does not take timely action to review BMPs in response to a petition from the Commission, as described below.⁵⁰

Implementation of Water Protection Measures on Forestlands

As described above, the Board, the Commission, ODF, and DEQ have interconnected roles in protecting Oregon's water quality on forestlands. Broadly speaking, the Commission and DEQ assess waters and establish the water quality standards, while the Board and ODF then establish forest practices to comply with and work towards compliance with those standards. The legislature intended for the two agencies to work collaboratively on their efforts so that each agency brings in its specific perspective and expertise to create a coordinated effort with the goal of protecting water quality and complying with the CWA.

Coordination between the agencies is an ongoing process. This coordination can help to inform the Commission's development of water quality standards, which can include waterbody specific criteria. The Commission establishes water quality standards in rule based on EPA regulations and guidance as well as DEQ's research and analysis.⁵¹ The Board and ODF may assist in the Commission's decisions related to water quality standards and also participate in DEQ's water quality standards revision process.⁵² The Board may also request that the Commission review any water quality standard that affects forest operations on forestlands.⁵³ However, state water quality standards must be reviewed and approved by EPA, so the state's authority in developing standards is limited by what is approvable by EPA.⁵⁴

If a waterbody is meeting the Commission's water quality standards, the Board's obligation is to ensure that forest practices do not impair maintenance of those standards.⁵⁵ If a waterbody is not meeting the Commission's water quality standards, DEQ will establish a TMDL for that

⁴⁷ OAR 629-635-0120(3).

⁴⁸ ORS 527.724.

⁴⁹ ORS 527.770.

⁵⁰ ORS 527.770, 527.765(3)(e).

⁵¹ ORS 468B.048.

⁵² ORS 468B.110; OAR 340-041-0001.

⁵³ ORS 468B.105.

⁵⁴ 33 USC § 1313(c)(3); 40 CFR 131.21.

⁵⁵ ORS 527.765.

waterbody, and determine whether current Board rules and any other measures proposed by ODF are adequate to achieve the pollution reduction required by the TMDL.⁵⁶ The Board and ODF should participate actively in DEQ's development of any TMDL involving state and private forestlands, including sharing data and information prior to and during TMDL development, and by participating in and providing input during DEQ's Local Advisory Group.⁵⁷ Once a TMDL is adopted and approved by EPA, any load allocations for non-federal forestlands and operations included in the TMDL will be binding. The Board is then obligated to implement rules that establish forest practices (which may include voluntary actions as well as regulatory changes) consistent with the TMDL. If DEQ then determines that existing Board rules or any other measures proposed to reduce pollution from these forestry activities (which may include voluntary actions as well as regulatory changes) are inadequate, DEQ will initiate the petition process set forth in ORS 527.765, by asking the Commission to petition the Board to revise its rules to protect water quality on forestlands. This process could lead to the loss of the BMP shield provisions for forest operations if the Board fails to revise the rules within the required time.

If the Board initiates rulemaking to adopt basin-specific water protection rules, it must follow the procedural steps required by forestry statutes, including making the findings required by ORS 527.714. DEQ's determination of a load allocation for non-federal forestlands in a sub-basin would be binding on the Board in establishing an overall target for the Board. However, the Board would retain discretion to determine *how* to achieve that target or outcome. In particular, under ORS 527.714(5)(e), the Board is obligated to choose the alternative practice that is the "least burdensome to landowners * * * while still achieving the desired level of protection." In addition, ORS 527.765(1) requires the Board to establish forest practice rules that meet a "maximum extent practicable" (MEP) standard. The Commission is not under an obligation to consider the burden to the landowners, however, nor is the MEP limitation included in Section 303(d) of the Clean Water Act. For the Board to meet its statutory obligation, it must look beyond the analysis of the Commission and take into account the effect that a particular forest practice would have on landowners. But because TMDL implementation is a requirement of the Clean Water Act, this required analysis does not authorize the Board to change the Commission's determination of water quality standards or TMDL requirements.

In sum, as the Board and Commission work cooperatively to improve water quality in sub-basins that are not currently meeting water quality standards, the Commission is responsible for determining the overall amount of pollution reduction needed on non-federal forestlands, and the Board is responsible for determining how to achieve those reductions. In determining whether current, generally applicable, Board rules are adequate to achieve reductions, the Board, ODF, DEQ and the Commission may also consider non-regulatory measures so long as DEQ can establish that there is a reasonable assurance that the measures, when implemented, will result in attainment of the relevant water quality standard.

⁵⁶ 33 USC § 1313(d); ORS 468B.110.

⁵⁷ ORS 468B.110; OAR 340-042-0050.

Appendix 2. Temperature TMDL Replacement Schedule

DEQ must amend and submit replacement temperature TMDLs for the areas listed below. DEQ must submit TMDLs to EPA at least 30 days in advance in order for EPA to complete its approval or disapproval by the dates listed below.

Jan. 15, 2024

- Southern Willamette Subbasins*
- Mid-Willamette Subbasins*
- Lower Willamette, Clackamas, and Sandy Subbasins*

**This TMDL will exclude the Willamette River mainstem and major tributaries. TMDLs for the Willamette River mainstem and major tributaries will be developed and submitted for EPA's approval or disapproval by Feb. 28, 2025.*

Feb. 28, 2025

- Willamette River mainstem and major tributaries
Tributaries included in the Willamette mainstem and major tributaries project area:
 - Willamette River from the confluence of the Columbia River including the Willamette Channel and the Multnomah Channel to confluence of Coast and Middle Forks (approximately river mile 187)
 - 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)
 - McKenzie River to confluence with the South Fork McKenzie River (approximately river mile 56)
 - South Fork McKenzie River to Cougar Dam (approximately river mile 4)
 - Blue River to Blue River Dam (approximately river mile 1.9)
 - 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)
- North Umpqua Subbasins
- South Umpqua and Umpqua Subbasins

Apr. 17, 2026

- Applegate, Illinois, Lower Rogue, and Middle Rogue Subbasins

- John Day River Basin
- Upper Rogue Subbasin

June 4, 2027

- Snake River - Hell's Canyon
- Lower Grande Ronde, Imnaha and Wallowa Subbasins
- Middle Columbia-Hood, Miles Creeks

May 29, 2028

- Walla Walla Subbasin
- Willow Creek Subbasin
- Malheur River Subbasins

Appendix 3. Flowchart : DEQ/ODF Collaboration in TMDL Process

Every 2 years, DEQ reports TMDL priorities to EPA

Discuss TMDL development priorities

- DEQ process/decision point
- ODF-DEQ discussion
- LAG or RAC input*

* larger groups that include ODF = Local Advisory Group [LAG] or Rule Advisory Committee [RAC]

ODF Collaboration in TMDL Process

