Oregon's Nonpoint Source Management Program Plan

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State of Oregon
DEQ Department of Environmental Quality

This document was prepared by

The Oregon Department of Environmental Quality
Water Quality Division
700 NE Multnomah Street, Suite 600
Portland Oregon, 97232

Contact: Ryan Michie
Phone: 503-229-6162
www.oregon.gov/deq

State of Oregon
DEQ Department of Environmental Quality

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Executive Summary

This Nonpoint Source Management program plan describes Oregon's programs and process for preventing and controlling nonpoint source pollution.

The 1987 amendments to the Federal Clean Water Act (CWA) added Section 319(b) to what is commonly called the Section 319 program. This section of law, now incorporated under Title 33 Section 1329(b) of the U.S. Code, requires the governor of each state to prepare and submit to the U.S. Environmental Protection Agency a management program plan for controlling pollution added from nonpoint sources and improving water quality. The plan must cover a five-year timeframe. The intended timeframe for this plan is from Jan. 1, 2022 – Dec. 31, 2026. After five years the plan will be reevaluated and revised as necessary.

The Oregon Department of Environmental Quality is the lead agency in developing the plan; however the plan is a state plan and identifies programs and actions that will be implemented by multiple state agencies, local governments, non-governmental organizations, and local citizens. The long-term goal of Oregon's Nonpoint Source Management Program is:

> *For all waterbodies and groundwater within Oregon, to attain and maintain water quality standards and designated beneficial uses in partnership with communities using a watershed-based adaptive management program.*

Oregon's goal cannot be achieved immediately and requires a long-term vision, short-term actions and adaptive management because of the complexities of nonpoint source pollution in a changing world. Actions in this plan are crafted to be completed over the next five years. The primary components of the plan are contained in Chapters 2-4.

Chapter 2 identifies the state's programs that collectively make up the Oregon's Nonpoint Source Program. The program includes both regulatory and non-regulatory components, monitoring and assessment, technical assistance, financial assistance, and various partnership programs.

Chapter 3 contains long-term program goals, objectives, and explicit short-term actions that programs will take over the next five years to continue our work to restore and protect surface water and groundwater. The type of actions are diverse and include: various program administrative functions; continued implementation or completion of planning process, assessments and scientific studies; coordination; funding, tracking and implementation of best management practices; and continued use of adaptive management.

Chapter 4 identifies the priorities of the program. These priorities shape the scope of work and how resources will be allocated between assessment and problem identification, planning activities, abating known water quality impairments with water quality improvement activities, and protecting threatened and high-quality waters from significant threats caused by present and future nonpoint source pollution.

Appendix A includes a certification from Oregon's Department of Justice that the laws of Oregon provide adequate authority to implement the program. This certification updates the certification that was completed as part of Oregon's 1989 Nonpoint Source Management Program plan (DEQ, 1989a).

Background

This plan is Oregon's fourth revision of the state's Nonpoint Source Management Program plan. The first was issued in July of 1989 (DEQ, 1989a). It was the capstone to a statewide nonpoint source assessment (DEQ, 1988), and a planning, and prioritization effort known as the Oregon Clean Water Strategy (DEQ, 1989b). The strategy provided a comprehensive method for combining existing water quality program elements into a single directed approach. The plan involved a multi-step process including: assessing water quality; targeting waterbodies for protection and improvement; setting up new programs, developing agreements and implementing action plans.

The 1989 plan was intended to guide the state's nonpoint source program for at least five years, but was designed to be broadly applicable for an indefinite period of time. Each year after adoption of the program plan, Oregon submitted requests to EPA for grant funding under Section 319(h). Each year's submission included an "intended use" plan explaining how the funds requested would serve the goals and objectives of the program plan that were deemed to be the highest priorities that year. In this way, the annual funding requests served as yearly updates of the 1989 plan.

The next major update to Oregon's Nonpoint Source Management Program came in October of 2000 (DEQ, 2000). Prior to the updated plan, the program had primarily been a "stand alone" effort, meaning several individual, dedicated DEQ staff sponsored education and awareness programs, provided technical assistance, developed "how to" guidance, and distributed federal money available for nonpoint source projects throughout the state. However, recognizing the significance and magnitude of nonpoint source pollution, the state determined that the program's goals could more effectively and efficiently be achieved by integrating nonpoint source concerns into the fabric of the state's basic water pollution programs including those at DEQ, Oregon Department of Agriculture and Oregon Department of Forestry.

The centerpiece of the updated program was the Oregon Plan for Salmon and Watersheds (Oregon Plan). Adopted in April 1997, the Oregon Plan was designed to restore the healthy function of the state's natural aquatic systems. The Oregon Plan called for salmonid fish populations to be restored to productive and sustainable levels. In order for this effort to succeed, the plan required all government agencies that could potentially impact aquatic systems to coordinate their activities and ensure that they were consistent with their watershed restoration efforts. The Oregon Plan integrated science with public support and local decision-making, and anticipated the use of regulatory controls as well as voluntary and cooperative actions. The Oregon Plan guided Oregon's Nonpoint Source Program work for over 15 years and continues to be an influence today.

The 2000 Nonpoint Source Program plan update also integrated EPA's nine key elements of a watershed-based plan into the Oregon's program and updated the state's goals, objectives, and priorities.

The third major update to the plan came in 2015 when EPA approved the 2014 update (DEQ, 2015). The updates made the plan consistent with EPA's Section 319 Program Guidance: Key Components of an Effective State Nonpoint Source Management Program November 2012 (USEPA, 2012). In addition to changes based on the EPA guidance, the 2014 update also revised the short-term goals and actions.

Components of a Nonpoint Source Program

Title 33 Section 1329(b)(2) and EPA guidance developed in 2012 (USEPA, 2012) outline the specific contents of a nonpoint source management program. Table 1 summarizes the required content and key components and where in this plan these components are addressed.

Table 1. US EPA key components of an effective state nonpoint source management program, Section 319 Program Guidance (USEPA, 2012) and required plan components identified in Title 33 Section 1329(b)(2), and in what chapter of this plan these components are addressed.

USEPA Key Components or Specific Content	Chapter
1. The state program contains explicit short- and long-term goals, objectives and strategies to restore and protect surface water and groundwater, as appropriate. 33 § 1329(b)(2)(C): A schedule containing annual milestones for utilization of the program implementation methods and implementation of the best management practices by the categories, subcategories, or particular nonpoint sources.	3. Program Goals, Objectives, Actions, and Milestones 2.12 Best Management Practices
2. The state strengthens its working partnerships and linkages to appropriate state, interstate, tribal, regional, and local entities (including conservation districts), private sector groups, citizens groups, and federal agencies.	2. The Oregon Nonpoint Source Program 2.11. Partnership Programs
3. The state uses a combination of statewide programs and on-the-ground projects to achieve water quality benefits; efforts are well-integrated with other relevant state and federal programs. 33 § 1329(b)(2)(B): An identification of programs (including, as appropriate, nonregulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects) to achieve implementation of the best management practices by the categories, subcategories, and particular nonpoint sources.	2. The Oregon Nonpoint Source Program
4. The state program describes how resources will be allocated between (a) abating known water quality impairments from nonpoint source pollution and (b) protecting threatened and high-quality waters from significant threats caused by present and future nonpoint source impacts.	2. The Oregon Nonpoint Source Program 4. Priorities for the Nonpoint Source Program

USEPA Key Components or Specific Content	Chapter
5. The state program identifies waters and watersheds impaired by nonpoint source pollution as well as priority unimpaired waters for protection. The state establishes a process to assign priority and to progressively address identified watersheds by conducting more detailed watershed assessments, developing Watershed Based Plans, and implementing the plans.	2. The Oregon Nonpoint Source Program 2.1.1 Water Quality Standards 2.1.3 Water Quality Assessment - Section 303(d) and 305(b) 2.1.4. Total Maximum Daily Loads and Water Quality Management Plans 3.6 Section 319 Grant Program 4. Priorities for the Nonpoint Source Program
6. The state implements all program components required by Section 319(b) of the Clean Water Act, and establishes strategic approaches and adaptive management to achieve and maintain water quality standards as expeditiously as practicable. The state reviews and upgrades program components as appropriate. The state program includes a mix of regulatory, nonregulatory, financial and technical assistance, as needed.	2. The Oregon Nonpoint Source Program 5. Program Management and Reporting 5.2. Reasonable Assurance and Adaptive Management
7. The state manages and implements its nonpoint source management program efficiently and effectively, including necessary financial management.	2. The Oregon Nonpoint Source Program 5. Program Management and Reporting 5.2. Reasonable Assurance and Adaptive Management
8. The state reviews and evaluates its nonpoint source management program using environmental and functional measures of success, and revises its nonpoint source management program at least every five years.	3. Program Goals, Objectives, Actions, and Milestones 5.3. Reporting
33 § 1329(b)(2)(A): An identification of the best management practices and measures which will be undertaken to reduce pollutant loadings resulting from each category, subcategory, or particular nonpoint source taking into account the impact of the practice on ground water quality.	2.12 Best Management Practices 3. Program Goals, Objectives, Actions, and Milestones

USEPA Key Components or Specific Content	Chapter
33 § 1329(b)(2)(D): A certification of the attorney general of the state or states (or the chief attorney of any state water pollution control agency which has independent legal counsel) that the laws of the state or states, as the case may be, provide adequate authority to implement such management program.	Appendix A
33 § 1329(b)(2)(E): Sources of federal and other assistance and funding which will be available in each of such fiscal years for supporting implementation of practices and measures and the purposes for which such assistance will be used in each of such fiscal years.	2.10 Funding and Incentive Programs

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1. Nonpoint Source Pollution

Nonpoint source pollution is defined in Oregon Revised Statues (ORS) 468B.005(3) where “Nonpoint source” means any source of pollution other than a point source. As described in Oregon Administrative Rule (OAR) 340-41-0020(42) generally, a nonpoint source is a diffuse or unconfined source of pollution where wastes can either enter into waters of the state or be conveyed by the movement of water into waters of the state. The following categories describe the broad sectors and sources of nonpoint pollution. The categories are grouped based on the similarity of practices, activities, or land conditions that produce nonpoint pollution.

- Agriculture
- Habitat modification
- Hydromodification
- Marinas and Boating
- Resource Extraction/Mining
- Silviculture/Forestry
- Stormwater
- Transportation
- Urbanization

EPA provides a comprehensive overview of these nonpoint source categories in various reports (USEPA 1993; USEPA 2001; USEPA 2005; USEPA, 2007; and at https://www.epa.gov/nps/types-nonpoint-source-pollution).

In 1978, DEQ completed the first statewide nonpoint source assessment (DEQ, 1978) under authority and funding of the federal Section 208 program. The assessment evaluated 27,738 miles of rivers and streams and found that approximately 15,192 miles (55%) have one or more nonpoint source-caused impairments to beneficial uses. The impacts were rated as either severe or moderate. Sources contributing to the impacts included agriculture, grazing and range management, forestry, recreation activities, mining, transportation, construction, sewage and storm water, and chemical storage and hazardous and solid waste disposal. In 1988, DEQ completed a second statewide assessment of nonpoint sources (DEQ, 1988) with similar results. Since then DEQ has completed more detailed assessments through the development of pollutant reduction plans, called Total Maximum Daily Loads (TMDLs).

These early assessments relied upon water quality data and several hundred resource professionals and others responding to questionnaires. After the 1988 assessment the state transitioned to using the 303(d)/305(b) Integrated Report to assess water quality and beneficial use support and detailed watershed scale TMDL assessments to determine pollution sources. Between 1988 and 2021 the state and EPA completed 55 TMDL actions in Oregon. In nearly all of them, nonpoint sources were determined to be a significant source of pollutants and received allocations.

2. The Oregon Nonpoint Source Program

Per USC 33 Section 1329(b)(2)(B), this chapter identifies the state's programs that collectively make up the Oregon Nonpoint Source Program. The program includes both regulatory and non-regulatory components, monitoring and assessment, technical assistance, financial assistance, and partnership programs.

A certification that the laws of Oregon provide adequate authority to implement Oregon's Nonpoint Source Program is included as Appendix A. This certification updates the certification that was completed as part of Oregon's 1989 Nonpoint Source Management Program plan (DEQ, 1989a).

2.1 Oregon Department of Environmental Quality

2.1.1 Water Quality Standards

The Oregon legislature has provided authority to the Environmental Quality Commission to develop rules that establish standards of quality and purity for the waters of the state (ORS 468B.048). Through the commission, DEQ has a water quality standards program. The program identifies beneficial uses of water, such as drinking water, aquatic life, recreation, etc., and the numeric and narrative water quality criteria designed to protect those uses.

The primary activities of the standards program include:

- Conducting triennial standards reviews to establish and update scientifically based water quality standards.
- Developing policy and procedure documents to ensure effective and transparent implementation of water quality standards.
- Coordinating with EPA's water quality standards program and the Oregon Health Authority to ensure surface water quality standards are consistent with federal and state requirements and to implement state programs.

At least once every three years, Oregon is required to review its water quality standards and submit any new or revised standard to EPA for review and approval. The standards, including the narrative and numeric criteria, are contained in Chapter 340, Division 41 of the Oregon Administrative Rules, https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1458. Additional information may be found on DEQ's water quality standards web page at: https://www.oregon.gov/deq/wq/Pages/WQ-Standards.aspx.

2.1.2 Water Quality Monitoring

Collection and assessment of water quality data is important for the Clean Water Act Section 303(d) and 305(b) Integrated Report and other aspects of the Oregon's Nonpoint Source Management Program. Monitoring data is used to understand statewide water quality trends in major rivers and streams, identifying and characterizing nonpoint source pollution in surface water or groundwater, supporting the development

of new, or revised water quality standards, identifying impaired beneficial uses and waterbodies, developing and implementing TMDLs and responding to environmental emergencies and investigations.

DEQ conducts both routine ambient monitoring and special studies such as monitoring to support TMDLs, toxics monitoring, groundwater monitoring, biological monitoring, and pesticide monitoring. In addition to samples collected by DEQ, the Volunteer Monitoring Program supports collection of data from third parties across the state, such as local watershed councils and Soil and Water Conservation Districts. The program provides technical guidance on monitoring efforts and maintains a loan program for water quality monitoring equipment. This assistance helps third parties identify and address the state's water quality problems. In addition to supporting local water quality awareness and management, data collected by third parties is submitted to the DEQ and is a very valuable addition to DEQ's monitoring dataset.

DEQ has developed a water quality monitoring strategy (DEQ, 2021) that describes a comprehensive, statewide water monitoring and assessment program for providing high quality, publicly accessible data, to address water quality program goals and statewide needs. The strategy outlines the chartered governance structure DEQ uses to propose, evaluate, prioritize and implement monitoring activities. It describes the status of existing monitoring programs and identifies internal and external strategic documents that influence the direction of DEQ's monitoring programs. The strategy emphasizes the important role that monitoring partnerships play in providing needed monitoring data.

2.1.3Water Quality Assessment - Section 303(d) and 305(b)

Every two years DEQ assesses the status of surface waters in its Integrated Report, which combines Clean Water Act requirements from both Sections 303(d) and 305(b), by assembling data and information about surface waters and beneficial use support. Using Oregon's assessment methodology, a determination is made on the condition and status of waters where sufficient data and information are available. The Integrated Report uses reporting categories as shown in

Table 2 to classify surface water quality status. The categories represent varying levels of beneficial use support, ranging from Category 1, where all designated uses are supported, to Category 5, where a water body is impaired and a Total Maximum Daily Load study or other water pollution control plan is required to return the water to a condition where the water quality standards are attained. DEQ uses the list of Category 5 waters to develop Total Maximum Daily Load priorities (Section 4.1.1) and conduct more detailed pollution assessments. See Section 2.1.4 for further details on the Total Maximum Daily Load program.

Table 2 303(d) and 305(b) Integrated Report assessment categories.

Category	Description
Category 1	All designated uses are supported.
Category 2	Available data and information indicate that some designated uses are supported and the water quality standard is attained.
Category 3	Insufficient data to determine whether a designated use is supported. Oregon further sub-classifies waters if warranted as: **3B**: insufficient data; potential concern: Insufficient to determine use support but some data indicate non-attainment of a criterion. **3C**: insufficient data; non-reference condition: Biocriteria scores differ from reference condition but are not classified as impaired. **3D**: insufficient data; not technologically feasible to assess: Insufficient data to determine use support because numeric criteria are less than quantitation limits.
Category 4	Data indicate that at least one designated use is not supported or a water quality standard is not attained but a TMDL or other pollution control plan is not needed to address the pollutant cause. This includes: **4A**: TMDLs have been developed and approved that will result in attainment of water quality standards and beneficial use support. **4B**: Other pollution control requirements are expected to address pollutants and will result in attainment of water quality standards. **4C**: Impairment caused by pollution, not by a pollutant
Category 5	Data indicate a designated use is not supported or a water quality standard is not attained and a TMDL or other pollution control plan is needed.

2.1.4 Total Maximum Daily Loads and Water Quality Management Plans

The federal Clean Water Act requires that pollutant reduction plans, called TMDLs, be developed for water bodies that are listed in Category 5 of the Integrated Report (303(d) List). TMDLs describe the maximum amount of pollutants that can enter a waterbody and still meet standards.

TMDLs take into account the pollution from all sources including discharges from industry and sewage treatment facilities, runoff from farms, forests and urban areas and natural sources. TMDLs include a margin of safety to account for uncertainty and may include a reserve capacity that allows for future discharges to a river or stream. DEQ develops TMDLs on a watershed, subbasin, or basin level and occasionally at the reach level depending on the type and extent of the category 5 listings.

As part of a TMDL, DEQ has authority under OAR 340-042-0040(4)(l) to develop a Water Quality Management Plan. A WQMP is the framework for TMDL implementation with management strategies that are implemented to attain and maintain water quality standards. The WQMP contains multiple elements including:

- Proposed management strategies designed to meet the allocations in the TMDL. This will include a categorization of sources and a description of the management strategies proposed for each source category and an explanation of how implementing the management strategies will result in attainment of water quality standards.
- A timeline for implementing management strategies including the schedule for revising permits, achieving appropriate incremental and measurable water quality targets, implementing control actions, and for completing other measurable milestones.
- A timeline for attainment of water quality standards.
- Identification of persons, including Designated Management Agencies (DMAs), responsible for implementing the management strategies and developing and revising sector-specific or source-specific implementation plans.

- Identification of sector-specific or source-specific implementation plans that are available at the time the TMDL is issued, and the schedule for preparation and submission of sector-specific or source-specific implementation plans by responsible persons, including DMAs, and processes that trigger revisions to these implementation plans.
- Description of reasonable assurance that management strategies and sector-specific or source-specific implementation plans will be carried out through regulatory or voluntary actions.
- The plan to monitor and evaluate progress toward achieving TMDL allocations and water quality standards including identification of persons responsible for monitoring, and the plan and schedule for reviewing monitoring information and revising the TMDL.

The WQMP framework is designed to work in conjunction with detailed implementation plans. Persons, including DMAs, identified in a WQMP as responsible for developing and revising sector-specific or source-specific implementation must:

- Prepare an implementation plan and submit the plan to DEQ for review and approval according to the schedule specified in the WQMP. The implementation plan must;
    - Identify the management strategies the DMA or other responsible person will use to achieve load allocations and reduce pollutant loading.
    - Provide a timeline for implementing management strategies and a schedule for completing measurable milestones.
    - Provide for performance monitoring with a plan for periodic review and revision of the implementation plan.
    - To the extent required by ORS 197.180 and OAR chapter 340, division 18, provide evidence of compliance with applicable statewide land use requirements.
    - Provide any other analyses or information specified in the WQMP.
- Implement and revise the plan as needed.

DEQ works closely with DMAs and responsible persons to develop TMDL implementation plans. TMDLs, WQMPs, and TMDL implementation plans collectively contain the 9-Key Elements for an EPA watershed-based plan and serve as watershed-based plans for Section 319 purposes. The management strategies and timeline for implementation identified in TMDL water quality management plans or TMDL implementation plans serve, in part, as the method in which Oregon's nonpoint source program identifies and schedules best management practices and other measures which will be undertaken to reduce pollutant loadings resulting from nonpoint sources.

2.1.5Water Quality Trading Program

Water quality trading is an innovative, voluntary program that facilitates intensive restoration work throughout the state of Oregon. Trading encourages a more holistic approach to water quality improvement within individual watersheds. Trading does this by creating a regulatory framework where water quality obligations for point sources are met by doing nonpoint source restoration elsewhere in a watershed. The most common type of trade happens when point sources of heat pollution are offset by restoring riparian shade where it does not currently exist (e.g., agricultural lands and rangeland). Trades in Oregon most often involve a NPDES permit, but can also be used to meet conditions outlined in a 401 water quality certification. In certain cases, point to point trades also occur. Clean Water Services (the water management utility operating in Washington County) uses stored cool water to achieve a portion of their NPDES requirements for temperature.

Oregon's water quality trades result in watershed pollutant reductions well beyond the specific heat load offset required under a permit. The extra benefits come from two sources: ratios and ancillary benefits. Heat loading blocked by riparian shade is normally enhanced at a 2:1 ratio. Under this typical ratio, twice the excess heat load (set under the permit) must be blocked than would be required using "built" or grey infrastructure. Grey infrastructure would be expected to be operated intermittently to satisfy permit requirements whereas restoration projects provide benefits year-round.

Ancillary benefits describe the pollution reductions or other positive features of riparian restoration projects that are over and above to the target pollutant reduction. In addition to shading streams, riparian restoration will also remove nutrients, and add to the ecosystem services provided by streams. To an extent, these ancillary features provide some of the most tangible benefits to people and the environment. As practiced in Oregon, trading reduces not only the targeted pollutant, but also creates habitat, stabilizes streambanks, intercepts stormwater, and benefits communities.

Oregon has been a leader in water quality trading. In 2015, newly adopted Oregon Administrative Rules clarified water quality trading and allowed for trading to occur through 401 water quality certifications. While the Clean Water Act does not directly address water quality trading, these rules build on a foundation of state statute authorizing water quality trading in Oregon and EPA policy that provides guidance to states to be consistent with the Clean Water Act.

Desired outcomes from water quality trading include those referenced in Oregon Administrative Rule 340-0039-0001(2) to:

- Achieve accelerated pollutant reductions and progress toward meeting water quality standards
- Reduce the cost of implementing Total Maximum Daily Loads (TMDLs)
- Establish incentives for voluntary pollutant reductions from point and nonpoint sources
- Offset new or increased discharges resulting from growth
- Secure long-term improvement in water quality
- Benefit water quality or designated uses.

Trading also provides economic framework that allows participants to buy and sell environmental improvement. Trading is the primary tool for permittees—401 applicants and NPDES permit holders—that allows for market-based approaches to achieve positive water quality outcomes. Water quality trading for temperature is part of NPDES permits that range geographically from the Tualatin Basin in the north to the city of Ashland in the south. Trading is part of two 401 water quality certifications to date, one is a water supply project on the Willamette River the other is the Hells Canyon Complex FERC relicensing. These two certifications highlight how Oregon's water quality trading program is being used to meet pollution control requirements in collaborative and novel ways.

2.1.6 Drinking Water Protection Program

Drinking water protection is implemented in Oregon through a partnership of DEQ and the Oregon Health Authority. The program addresses over 2,500 public water systems serving approximately 75 percent of Oregon's citizens. Under an interagency agreement with OHA and with funding from the Safe Drinking Water Act, DEQ is responsible for source water protection which includes minimizing the risk to the source water before it reaches the surface water intake or groundwater well for a public drinking water system. DEQ uses Clean Water Act tools and pollution prevention to minimize treatment costs and reduce public health risk. When source waters meet Clean Water Act water quality standards, then standard treatment technology should be sufficient to produce safe drinking water.

By 2008, OHA and DEQ completed source water assessments including identification of risk associated with the land management activities in drinking water source areas for all public water systems that have at least 15 hookups or serve more than 25 people year-round. Between 2016 and 2020, OHA and DEQ completed a significant number of assessment updates including updated reports for all surface water systems. Updated assessments provide public water systems additional information on geographic setting and point and nonpoint source pollution risks to drinking water supplies. OHA and DEQ encourage and assist public water systems and local communities to use the information in the assessments to voluntarily develop place-based plans and implement drinking water protection strategies to ensure that public drinking water resources are kept safe from future contamination and minimize future treatment costs.

The DEQ Drinking Water Protection Program has also completed resource guides for both surface water and groundwater public water systems to provide technical assistance, funding information, and resources to public water systems in Oregon. DEQ's drinking water protection program and the nonpoint source program collaborate to help identify, prioritize and implement best management practices for water quality

improvements addressing harmful algae blooms, nutrients, turbidity, microbes and toxics. The objectives of the collaboration include optimizing agency resources by focusing on the highest priority pollutants in a coordinated way, implementing actions that reduce toxic pollutants at the source, and establishing partnerships with other agencies and organizations to increase the effective use of public and private resources.

DEQ drinking water protection staff regularly assist the Nonpoint Source program with forestry and agriculture issues, provide review on nonpoint source program efforts, and participate in committees working to improve forest and agricultural practices to benefit fish and drinking water sources, especially in western Oregon. Through research, data analysis, evaluation of potential pollutant sources, and work with partners, staff are determining which forestry and agricultural practices are likely to be protective of drinking water quality with regard to turbidity/sediment, nutrients, bacteria, and organic material. Pesticide applications on agricultural and forestlands within Drinking Water Source Areas is a common community concern. Ongoing studies, existing research, and new analysis of data are evaluated in cooperation with the Oregon Departments of Forestry and Agriculture and other partners.

Additional examples of drinking water protection work that supports nonpoint source management in Oregon includes minimizing sources of turbidity to drinking water intakes, addressing water system and community concerns about pesticide application on forested and agricultural lands, evaluating potential for harmful algae blooms and minimizing nutrient and turbidity inputs, assisting with waste pesticide collection events, partnering with drinking water providers to provide outreach and funding to address failing septic systems, providing input to encourage incorporation of drinking water concerns in agricultural management plans, assisting local partners in managing stormwater runoff upstream of intakes, and providing technical assistance to prioritize areas for riparian restoration.

A key function for DEQ is to connect water systems and communities with partner organizations that may be able to assist with drinking water protection efforts that cannot be performed with existing staff and resources at the water system. Partner organizations such as county Soil and Water Conservation Districts, watershed councils, Oregon State University Extension staff, land trusts, and others can help with implementing strategies or developing a strategic protection plan, as well as with grant writing and additional funding when significant collaboration work is necessary. Local conservation partners and drinking water providers have common goals for soil protection, water quality, and health and both work towards non-regulatory, voluntary approaches to encourage adoption of best practices addressing a wide-range of issues. This establishes a mutually beneficial relationship. Public water systems typically do not have the technical expertise for watershed restoration/enhancement or groundwater protection and much of source area is outside of water system jurisdiction. For conservation organizations, projects that also protect drinking water broaden community support for conservation and restoration activities and provide access to funding that may only be available or prioritized in drinking water source areas.

Potential funding sources available only in drinking water source areas include OHA’s Source Protection Fund for grants and loans; the Drinking Water Providers Partnership; and focused funding from Natural Resource Conservation Service (NRCS).

OHA administers the Drinking Water Revolving Loan Fund (DWRLF) which provides grants of up to $30,000 per water system for source water protection activities, monitoring, and planning to reduce risk in drinking water source areas and loans for improving drinking water treatment, source water protection activities, or land acquisition in source areas. DEQ assists with project review and Oregon's Infrastructure Finance Authority is responsible for administering these grants and loans. The loan fund also funds five drinking water protection positions at DEQ. These positions delineate source areas, integrate Clean Water Act programs (including the Nonpoint Source Program) with source water protection needs, provide technical assistance to public water systems, and research the impacts of nonpoint source pollution on surface and ground drinking water sources.

In July 2018, NRCS expanded the scope of the National Water Quality Initiative to include source water protection, including both surface and groundwater public water systems. Oregon conservation partners including DEQ and NRCS responded by submitting five proposals in the state, all of which were selected by U.S. Department of Agriculture to undergo a readiness phase that includes developing a detailed watershed assessment and outreach strategy to address agricultural-related impacts to source water quality. Five additional source water protection readiness projects were funded in FY2020 and one in FY2021 for a total of 11 projects in Oregon. Use of Oregon's existing source water assessments (and updated assessments) was critical to quickly prioritize and identify areas for project submission as well as provide readily available information to complete the proposals to meet the federal deadlines. Following completion of the watershed assessment, the protection areas will then be eligible to receive federal farm bill funding to implement the measures identified in their plans specific to agricultural impacts.

2.1.7 Ground Water Protection and Groundwater Management Areas (GWMAs)

Groundwater makes up approximately 95 percent of available freshwater resources in Oregon. Approximately 70 percent of all Oregon residents rely solely or in part on groundwater for drinking water. Over 90 percent of rural Oregonians rely on groundwater for drinking water.

Groundwater is present beneath almost every land surface and is sometimes at very shallow depths. It is vulnerable to contamination from nonpoint source pollution and activities that take place on the land as well as from discharges of wastes and pollutants at or below the ground surface. DEQ uses a combination of water quality and land quality programs to help prevent groundwater contamination from point and nonpoint sources of pollution, clean up pollution sources, and monitor and assess groundwater and drinking water quality. Once groundwater becomes contaminated, it is very difficult to clean up. This contamination may impair groundwater for use as drinking water and may affect the quality of the surface waters where it comes to the surface.

In 1989 Oregon established two sets of groundwater laws: the Groundwater Protection Act (ORS 468B.150 – 468B.190) and the Domestic Well Testing Act (ORS 448.271). The goals of the Oregon Groundwater Protection Act are to prevent contamination of groundwater resources, conserve and restore groundwater, and maintain the high quality of Oregon's groundwater resource for present and future uses. The act established a comprehensive groundwater program that included characterization and

monitoring of ground water quality, programs to prevent ground water quality degradation through the use of best management practices, and authority to use ground water contamination levels to trigger specific governmental actions designed to prevent or restore ground water quality.

Groundwater protection authority under Oregon state law is primarily vested in DEQ, although other agencies and counties have important roles, particularly with regard to controlling nonpoint sources that could pollute groundwater.

This authority includes DEQ designating Groundwater Management Areas (GWMAs) when groundwater in an area has elevated contaminant concentrations resulting, at least in part, from nonpoint sources. A contaminant is considered elevated when its concentration in an area is greater than or equal to 70% of the maximum contaminant level set by EPA under the Safe Drinking Water Act.

Once the GWMA is declared, a local Groundwater Management Committee comprised of affected and interested parties is formed. The committee then works with and advises the state agencies that are required to develop a GWMA action plan to reduce groundwater contamination in the area. This plan contains a description of the voluntary actions that, when implemented by the various agencies and organizations involved, could reduce the amount of nonpoint source or point source pollution leaching into the groundwater. The action plan identifies sources such as irrigated agriculture, land application of food processing water, septic systems (rural residential areas), and confined animal feeding operations.

The act also requires reporting. On or before Jan. 1 of each odd-numbered year, DEQ must prepare a report to the legislature that includes the status of groundwater in Oregon; efforts made in the immediately preceding year to protect, conserve and restore Oregon's groundwater resources; and any grants awarded.

The Domestic Well Testing Act, including amendments in 2009, requires that wells that supply groundwater for domestic purposes be tested for arsenic, nitrates, total coliform bacteria and any other contaminants of public health concern that OHA has established in rule. Wells must be tested when they are included in any real estate transaction and the seller accepts an offer to purchase or exchange that real estate. Only laboratories accredited according to Oregon Environmental Laboratory Accreditation Program can conduct the samples analysis. The results must be sent to the buyer and to OHA where they are made publicly available in the real estate transaction well report database. This data provides the public and state with critical information on groundwater quality in private domestic wells.

Further recognizing the importance of groundwater, in 2013 the legislature approved additional funding for monitoring outside of the groundwater management areas. The goal for this monitoring program is to provide a comprehensive assessment of groundwater quality in vulnerable aquifers around the state. DEQ conducts regional groundwater studies annually and compiles the monitoring and assessment results into geographical area reports each year. The prioritization factors and current groundwater monitoring and assessment priorities are described in Section 4.1.2.

2.2 Oregon Department of Forestry

The Oregon Department of Forestry and the Board of Forestry is charged with protecting, managing, and promoting stewardship of Oregon's non-federal forests. The Board of Forestry is a seven-member citizen board that appoints and supervises the State Forester and oversees all matters of forest policy within Oregon. The Board of Forestry is also responsible for adoption of rules regulating forest practices.

2.2.1 Private Forests

Oregon's nonpoint source program for private non-federal forestlands is primarily administered by the Oregon Department of Forestry (ODF) through the Oregon Forest Practices Act (FPA). Under ORS 468B.110(2), ORS 527.765, and ORS 527.770, the Environmental Quality Commission is responsible for establishing water quality standards and determining the overall amount of pollution reduction needed when a water body does not achieve those standards. Through the FPA, the Board of Forestry establishes best management practices or other actions by rule that will ensure attainment and maintenance of federally approved water quality standards or TMDL requirements. The FPA rules are periodically evaluated to ensure that forest practices do not impair the achievement and maintenance of water quality standards. If the Board of Forestry finds that forest practices in a watershed are measurably limiting to water quality achievement or species maintenance, the Board must appoint an interdisciplinary task force that must analyze the conditions in the watershed and recommend whether additional watershed-specific protection rules are needed (OAR 629-635-0120(3)). If the EQC determines the rules are not adequate to implement TMDL load allocations or achieve water quality standards, the EQC is authorized to petition the board for a review of part or all of the rules (ORS 527.765(3); OAR 340-042-0080). The petition must allege with reasonable specificity that nonpoint source discharges of pollutants resulting from forest operations are a significant contributor to violations of such standards (ORS 527.765(3)(a).

If the Board determines that best management practices should be reviewed, rules specifying the revised practices must be adopted no later than two years from the filing date of the petition for review, unless the Board, with concurrence of the EQC, finds that special circumstances require additional time. Upon the EQC's request, the board is required to "take action as quickly as practicable to prevent significant damage to beneficial uses." The board's exclusive enforcement authority under ORS 527.770, often referred to as a "BMP shield", is lost if the board fails to complete required revisions, or makes a finding that revisions are not required, within the statutory deadline. Also, if the Board fails to act the EQC can 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 approved TMDL requirements (ORS 468B.110(1)).

In March 2022 Senate Bill 1501 became effective and requires the Board of Forestry to adopt a comprehensive set of new rules and revisions to the FPA that, in combination with the aerial herbicide buffers passed in 2020 (SB 1602), will lead to a wide-ranging set of actions and management practices that are expected to be a significant improvement to water quality protection on private forestlands. The new rules stem from an agreement reached in October 2021 between timber industry advocates and conservation groups. The negotiation process and final report detailing the agreement (Stevens et al 2022) are known as the Private Forest Accord. The Private Forest Accord

also resulted in the legislature passing and Governor signing Senate Bill 1502 and House Bill 4055. These bills became effective in June 2022. Senate Bill 1502 relates to tax credits for small forestland owners that observe riparian timber harvest restrictions applicable to large forestland owners. House Bill 4055 makes changes to taxation of forest products and directs certain tax revenue be used to mitigate the effects of forest practices on aquatic species.

2.2.2 State Forests

ODF manages approximately 745,000 acres of state-owned forestlands across Oregon. These forestlands comprise of five state forests and other smaller parcels. The five state forests include:

- Clatsop State Forest
- Tillamook State Forest
- Santiam State Forest
- Gilchrist State Forest
- Sun Pass State Forest

These state forestlands are actively managed under state forest management plans to provide economic, environmental, and social benefits to Oregonians. ODF also develops implementation plans that describes in more detail how the management strategies described in the forest management plans will be applied on that area. These plans describe forest management activities such as timber harvest, road construction and maintenance, reforestation and young stand management, recreation, aquatic habitat restoration, and protection strategies for species of concern. Revisions to these implementation plans occur at least every ten years or sooner, if new technical information or changing conditions may call for updates to individual district implementation plans.

ODF is currently developing a Habitat Conservation Plan (HCP) and companion Forest Management Plan for about 640,000 acres of ODF-managed forests west of the Cascades. The Western Oregon State Forests HCP supports the applications for federal Endangered Species Act (ESA) incidental take permits from the National Oceanic and Atmospheric Administration Fisheries and the U.S. Fish and Wildlife Service. This HCP describes potential effects on a suite of 17 federally listed and at-risk species from ODF's forest management activities, including timber harvest, stand management, and the construction and maintenance of facilities to implement a recreation program over a 70-year permit term. The HCP also describes a conservation strategy to avoid, minimize, and mitigate any effects from those activities during that timeframe.

The location where the HCP and ESA permit coverage would apply must be defined and is called the permit area. The permit area in this HCP is defined as all ODF-managed lands in western Oregon. This includes all Board of Forestry lands and Common School Forest lands owned by the Oregon Department of State Lands but managed by ODF. Collectively these lands encompass 639,489 acres. A 94,206-acre buffer surrounding parts of the permit area has been identified where ODF has the potential to acquire or exchange lands with neighboring landowners in the future. Following a land exchange, the HCP and permits would apply to any lands newly acquired by ODF, and permits would no longer apply to any lands that ODF no longer managed. The plan area encompasses the permit area plus this additional 94,206-acre buffer.

This HCP and permits are proposed to cover and provide incidental take authorization for ODF's land management activities in the permit area, other activities that ODF has jurisdiction over, and the activities needed to carry out the conservation strategy. Covered activities must be "under the control" of the permit holder and occur within the permit term and in the permit area in order to receive coverage. Broad categories of the covered activities are listed below:

Covered activity categories include:

- Timber Harvest
- Stand Management
- Road System Management
- Recreation Infrastructure Construction and Maintenance
- HCP Conservation Actions

ODF State Forests Division completed an administrative draft HCP for western Oregon state forests on March 31, 2021. On March 8, 2021, the National Marine Fisheries Service filed its notice of intent to prepare an Environmental Impact Statement in the federal register. A record of decision is expected winter of 2022.

2.3 Oregon Agriculture Water Quality Management Act

The Agricultural Water Quality Management Act (ORS 568.900 to 568.933) is the primary program to address nonpoint source pollution from agricultural lands. The Act authorizes the Oregon Department of Agriculture, under ORS 568.900 to 568.933 and 561.190 to 561.191, and OAR 603 chapter divisions 90 and 95, to develop and implement Agricultural Water Quality Management Area Plans and Agricultural Water Quality Management Area Rules to prevent and control water pollution from agricultural activities. ORS 561.191 states that ODA shall develop and implement any program or rules that directly regulate farming practices to protect water quality. ODA enforces area rules when voluntary efforts fail to address water quality issues. Area rules and implementation of voluntary area plans are the primary program to prevent and control nonpoint source pollution from agricultural lands.

ODA identified 38 watershed-based Agricultural Water Quality Management Areas across Oregon. ODA then developed a set of plans and rules for each management area with a Local Advisory Committee, and input from the Soil and Water Conservation District, DEQ, and other conservation partners. The plan guides landowners and partners such as SWCDs in addressing water quality issues related to agricultural activities. The plan identifies strategies to prevent and control "water pollution from agricultural activities and soil erosion" (ORS 568.909(2)) on agricultural and rural lands within the boundaries of this management area (OAR 603-090-0000(3)) and to achieve and maintain water quality standards (ORS 561.191(2)). The area plan is implemented using a combination of outreach, conservation and management activities, compliance with area rules, monitoring, evaluation, and adaptive management.

Each plan is accompanied by rules that describe local agricultural water quality regulatory requirements. ODA exercises its regulatory authority for the prevention and control of water pollution from agricultural activities under the Agricultural Water Quality Program's general regulations (OAR 603-090-0000 to 603-090-0120) and under the rules for each

management area. The general regulations guide the Ag Water Quality Program, and the rules for the management area are the regulations with which landowners must comply. Landowners are encouraged through outreach and education to implement conservation and management activities.

The area plan and area rules apply to all agricultural activities on non-federal and non-Tribal Trust land including:

- Farms and ranches
- Rural residential properties grazing animals or raising crops
- Agricultural lands that lay idle or on which management has been deferred
- Agricultural activities in urban areas
- Agricultural activities on land subject to the Forest Practices Act (ORS 527.610)

Area plans must describe a program to achieve the water quality goals and standards necessary to protect designated beneficial uses related to water quality, as required by state law (OAR 603-090-0030(1). An area plan must:

- Describe the geographical area and physical setting of the Management Area
- List water quality issues of concern
- List impaired beneficial uses
- State that the goal of the area plan is to prevent and control water pollution from agricultural activities and soil erosion in order to achieve applicable water quality standards
- Include water quality objectives
- Describe pollution prevention and control measures deemed necessary by ODA to achieve the goal
- Include an implementation schedule for measures needed to meet applicable dates established by law
- Include guidelines for public participation
- Describe a strategy for ensuring that the necessary measures are implemented

The plans, rules, and the biennial review reports can be found at the following link: https://www.oregon.gov/oda/programs/NaturalResources/AgWQ/Pages/AgWQPlans.aspx .

The plans and rules are reviewed every two years for each management area. ODA must consult with DEQ or the EQC in the adoption and review of area plans and in the adoption of area rules (ORS 568.930 (2)). If DEQ determines that the plan and rules are not adequate to implement and achieve TMDL load allocations, DEQ will provide ODA with guidance on what would be sufficient to meet the TMDL load allocations. If a resolution cannot be achieved, DEQ will request the EQC to petition ODA for a review of part or all of the plans and rules (ORS 568.930(3)) implementing the TMDL.

2.4 Oregon Water Resources Department

Water quantity is an important factor in maintaining and protecting water quality. The quantity of water affects the pollutant loading capacity of that waterbody and therefore has a strong relationship to nonpoint source pollution.

The Oregon Water Resources Department, as directed by the Water Resources Commission, is the primary state agency responsible for the establishment of policy and procedures for the use and control of the state's water resources from a water quantity perspective. In executing this responsibility, the commission develops, adopts and periodically modifies programs for the state's major hydrological basins. Basin programs are administrative rules which establish water management policies and objectives and which govern the appropriation and use of the surface and ground water within each of the respective basins.

The rules classify surface and ground waters according to the uses which are permitted, may establish preferences among uses, may withdraw surface and ground waters from further appropriation, may reserve waters for specified future uses, and may establish minimum perennial streamflows. These rules are in addition to rules with statewide applicability, which govern the allocation and use of water. The department has basin programs for all of its administrative basins in Oregon, with the exception of the Klamath Basin. These basin programs classify streams for different uses, including fish and wildlife, and set minimum perennial streamflows for some streams and their tributaries at specific times of year. For example, most recently for a coastal stream, the commission classified the waters of the Smith River in Curry County for instream purposes.

Oregon has authority under the Instream Water Right Act (ORS 537.332 – 360) to establish instream water rights, where needed, to protect instream flows for recreation; conservation, maintenance and enhancement of aquatic and fish life, wildlife, fish and wildlife habitat and any other ecological values; pollution abatement; or navigation. Three agencies—DEQ, Department of Fish and Wildlife, and Parks and Recreation Department—may submit applications for instream water rights to the Water Resources Department. Of the agencies, ODFW has applied for the most instream water rights across the state, but DEQ has also applied for pollution abatement purposes. ODFW is also continuing instream flow studies, which will be the basis for future instream water right applications. Many instream water right applications are protested by other water use sectors. Oregon continues to work on resolving protested instream water right applications.

Through the Oregon Plan OWRD and other state agency staff work with non-governmental organizations and water rights holders to restore streamflow through voluntary flow restoration measures. Voluntary measures to restore instream flows include in-stream leases, in-stream transfers, allocations of water conserved through improved efficiencies, and changes to existing rights including consolidation or point(s) of diversion transfers. In addition, in certain circumstances, reclaimed water from certain municipal, industrial and confined animal feeding operations may provide an effective alternative to new diversions of surface water or groundwater

Nonpoint source pollution, such as the impacts of water withdrawals on stream temperature is addressed through the various processes and programs. One way in which these impacts are addressed is through the Division 33 Interagency Review Team. Division 33 rules require interagency review of water right (withdrawal) applications to identify impacts to sensitive, threatened and endangered fish species and water quality standards. OWRD, ODFW, DEQ, and ODA compose the review team. Which may recommend conditions or mitigation to offset identified impacts. In some instances, conditions or mitigation cannot be identified, and OWRD will deny the application.

2.4.1 Oregon's Integrated Water Resources Strategy

Oregon's Integrated Water Resources Strategy charts a long-term course to meet the state's instream and out-of-stream water needs.

First adopted by the Water Resources Commission in 2012, and updated in 2017, Oregon's strategy outlines a framework for better understanding and meeting instream and out-of-stream water needs, including water quantity, water quality, and ecosystem needs. Using a process that involved extensive public outreach, the strategy identifies the most critical water-related challenges facing communities throughout Oregon. It offers recommendations in different issue areas to address these challenges.

The strategy recommends that OWRD help communities undertake a collaborative, integrated approach to water planning. Place-based integrated water resources planning is a voluntary, locally initiated and led effort, in which a balanced representation of water interests works in partnership with the state to understand and meet their instream and out-of-stream water needs. In 2015 OWRD developed guidelines that provide a framework for planning. OWRD is a partner in these planning efforts and provides financial, technical, and planning assistance to the communities testing the guidelines. In addition, DEQ, ODFW, ODA and other agencies provide technical assistance and resources, when applicable.

The statute and guidelines require that these integrated water resources planning efforts balance current and future instream and out-of-stream water needs. The planning process includes the following five steps:

- Step 1: convene a balanced representation of interests in a collaborative, consensus-based process (groups representing instream interests and needs are included).
- Step 2: gather information to understand water resources and identify gaps in knowledge.
- Step 3: evaluate current and future water needs for people, the economy and the environment.
- Step 4: identify integrated strategies and actions to meet current and future instream and out-of-stream needs.
- Step 5: finalize, adopt, and implement an Integrated Water Resources Plan.

There are four groups currently testing the guidelines in partnership with the OWRD. These groups are the Mid-Coast Water Planning Partnership, the Lower John Day Basin Working Group, the Upper Grande Ronde River Watershed Partnership, and the Harney Community-Based Water Planning Collaborative.

As an example of the planning process, the Mid-Coast Water Planning Partnership is one of four groups currently testing the guidelines in partnership with the Department. This effort is co-convened by the Seal Rock Water District and OWRD. The planning area contains the coastal watersheds within Lincoln County's boundaries from Cascade Head to Cape Perpetua.

An interim outcome of the Mid-Coast Water Planning effort is the formation of a consortium of municipal and special districts to partner on joint conservation messaging and projects that incentivize conservation. Individual water users are finding ways to reduce their impact on instream flows by increasing conservation through automated

metering infrastructure and alteration of reservoir operations. Reports documenting potential climate change impacts have been developed by the Oregon Climate Change Research Institute and the Army Corps of Engineers. OWRD has partnered with Oregon State University to develop a water supply and demand model that can be used to help the partnership assess the effectiveness of different water supply and conservation measures on desired objectives. A plan is expected at the end of 2021.

2.4.2 Drought Readiness Council

The Drought Readiness Council, co-chaired by the Oregon Water Resources Department and Oregon Office of Emergency Management, reviews local requests for assistance and makes recommendations to the Governor regarding the need for state drought declarations. The council consists of state agencies with natural resources management, public health, or emergency management expertise.

2.4.3 State Scenic Waterways:

In 1970, the people of Oregon established the Scenic Waterways Program through a ballot initiative (ORS 390.805 to 390.925). The program is managed by the Oregon Parks and Recreation Department. Goals of a scenic waterway include protecting the free-flowing character of designated rivers and lakes; protecting and enhancing scenic and natural values, including recreation, fish and wildlife; protecting private property rights; and encouraging agencies to act consistently with the goals of scenic waterways management. New scenic waterways are studied by Oregon State Parks and the Oregon Parks and Recreation Commission, with concurrence from the Oregon Water Resources Commission, prior to recommending designation of new scenic waterways to the Governor.

Recently added state scenic waterways include segments of the Chetco, Molalla, and Nehalem Rivers. A list of all state scenic waterways can be found at www.oregon.gov/oprd/BWT/Pages/SSW-list.aspx.

Before any new water rights can be issued within or above a state scenic waterway, the Oregon Water Resources Commission is required to set flows to maintain the free-flowing character of the waters in quantities necessary for recreation, fish, and wildlife uses.

Scenic waterway flows are subtracted from the total amount of water available for allocation to new surface water rights that are applied for after designation and that would withdraw water within or above the scenic waterway. New water permits issued within or above a scenic waterway contain conditions that allow the right to be regulated if the scenic waterway flows are not being met.

OWRD may issue new groundwater rights within or above a scenic waterway unless it determines that: a) the proposed diversion measurably reduces surface water flows in the Scenic Waterway, b) there is no surface water available for additional allocation, and c) all new groundwater appropriations will cumulatively reduce scenic waterway flows by one cfs or 1 percent of the average daily flow by month, whichever is less. In these instances, OWRD may deny the permit unless mitigation is provided.

New impoundment structures, such as reservoirs, are not allowed on the designated reach or within a quarter mile of the designated reach. Off-channel reservoirs may still be allowed outside of the quarter mile of the reach.

2.5 State Land Use Planning

The Department of Land Conservation and Development implements Oregon's land use planning program, which influences how land is used throughout the state. The department and the Land Conservation and Development Commission is charged by the legislature with: managing urban growth; preserving working farm and forest lands; and managing development to protect natural resources, and coastal resource areas. The land use program has broad influence on the generation and impact of nonpoint source pollution through implementation of rules and incentives to achieve compact urban development and minimize the impact of rural development on working lands and natural resources. The program also directs cities and counties to protect specific water quality related landscape features when planning for and permitting development in their jurisdictions.

The Department of Land Conservation and Development does not regulate development directly. DLCD uses authority provided in statute to set standards and process requirements for how local governments establish plans and policies to achieve long-range development objectives. DLCD also sets standards and procedures for local government review of applications for development permits. When local governments adopt a zoning regulation in response to a TMDL load allocation, they will do so within the framework of state land use program. For instance, protection of vegetated riparian buffers, will trigger the process requirements of the Goal 5 riparian rule (OAR 660-023-0090) or supported by finings that the protections are consistent with Goal 6. Goal 11 and its implementing rules, OAR 660-011, require that cities with a population greater than 2,500 adopt public facilities plans that meets its current and long-range needs. Stormwater management practices employed to reduce sediment, nutrient and heavy metal loads are commonly described in a city's public facilities plan.

2.5.1 Goal 14 Urban Planning

A cornerstone of the state's land use planning program is a requirement that every city, no matter how small, has an established urban growth boundary. Goal 14 ensures that the vast majority of residential, commercial and industrial development occurs within a UGB. Exceptions are allowed in defined rural communities that existed prior to the state's land use laws and along transportation corridors to serve local needs. UGB's can only be expanded if a city can demonstrate a need for developable land that cannot be met on vacant land within the UGB or through policies to increase density on partially developed land. While this emphasis on compact, efficient, urban development does not eliminate nonpoint source pollution from developed areas, it significantly constrains urban sprawl and limits where urban runoff contributes to surface water impairments around the state.

2.5.2 Goal 5 Natural Resources

Goal 5 and the supporting administrative rules in OAR 660-023 prescribes process steps to inventory, evaluate, and protect significant natural resource sites. Goal 5 resource categories include riparian areas, wetlands, wildlife habitat, and groundwater. These

rules provide for keeping some lands in areas otherwise committed to urban development as open space and protecting significant resource sites for the water quality and other natural functions they provide. In rural areas Goal 5 is the primary regulatory tool counties have for establishing riparian buffer areas that apply to development activities. The Goal 5 process and protection measures are often used by local jurisdictions to obtain load reduction targets prescribed in TMDL implementation plans.

2.5.3 Goal 6 Air, Land, and Water Quality

Goal 6 directs local governments to plan for development so as not to violate applicable state or federal environmental quality statutes, rules and standards. The goal provides a path, in addition to Goal 5, for setting local development standards that preserve watershed functions and reduce nonpoint source impacts to surface and ground water.

2.5.4 Goal 15 Willamette River Greenway

Goal 15 is specific to development along the Willamette River. It incorporates many of the natural resource protection objectives of Goal 5 and is used instead of Goal 5 as the basis of local review standards that apply to development along the Willamette.

2.5.5 Coastal Zone Management

DLCD is the lead agency of the federally-approved Oregon Coastal Zone Management Program (OCMP), provided for under the Coastal Zone Management Act of 1972 (CZMA). The OCMP is connected to the state's Nonpoint Source Management Program through its joint responsibility with DEQ, under Coastal Zone Amendments Reauthorization Act (CZARA), to develop and implement the state's Coastal Nonpoint Pollution Control Program (described further in Section 2.6). CZARA Section 1455b.a.2 requires a program developed under the act to be coordinated with state water quality plans and programs and to serve as an update and expansion of the state Nonpoint Source Management Program developed under Section 1329 of Title 33, as the program under that section relates to land and water uses affecting coastal waters.

The OCMP is a networked program implemented in cooperation with other state agencies and local governments within the Coastal Zone. DLCD authorities and enforceable policies within OCMP stem from statewide land use planning goals, state statutes and administrative rules, and local comprehensive plans and land use regulations. Of particular importance are DLCD authorities stemming from land use Goals16 (estuary resources), 17 (coastal shorelands), 18 (beaches and dunes), and 19 (ocean resources). The OCMP supports the preparation of management plans, which are used in part to establish local review criteria for individual development projects and inform coordinated management of coastal resources by local, state, and federal agencies. Most relevant to water quality are estuary management plans that preserve most of Oregon's estuaries and their shorelines for conservation objectives. Regulatory standards and research related to Goals 18 and 19 include consideration of water quality as it relates to nearshore habitat. The CZMA also provides the OCMP authority to review proposed federal actions, permits, and licenses that have the potential of causing adverse coastal effects to coastal resources or uses. The federal consistency review allows the state to ensure a proposed action is consistent with state enforceable policies,

which can include water quality standards even when state permits are not required. [CZMA 1456.1&3]

2.6 Coastal Nonpoint Pollution Control Program

Section 6217 of the CZARA requires that all states and territories with federally approved coastal management programs develop Coastal Nonpoint Pollution Control Programs (CNPCP) to reduce impact from polluted runoff on coastal waters. CZARA is jointly administered by the National Oceanic and Atmospheric Administration (NOAA) and the EPA. In Oregon, DLCD and DEQ are the lead state agencies managing the program although many other state agencies play a role in program implementation. EPA and NOAA must approve a state's coastal nonpoint pollution control program. If the federal agencies do not approve a state's CNPCP program, federal funding for DLCD coastal management program and DEQ's nonpoint source pollution control programs are reduced.

CZARA requires states with coastal management programs to implement a set of management measures. The measures are designed to control runoff from six main sources: forestry; agriculture; urban areas; marinas; hydromodification (such as dams or shoreline and stream channel modification); and management of wetlands, vegetated shorelines, and riparian areas. Where there is information to indicate that these management measures are not sufficient to attain water quality standards, Section 6217(b)(3) directs states to implement "additional management measures". These measures are described as those, "necessary to achieve and maintain applicable water quality standards under Section 303 of the Federal Water Pollution Control Act (33 U.S.C. 1313) and protect designated uses."

Oregon's CNPCP boundary includes all lands west of the crest of the Coast Range and the entire South Coast Basin including the Rogue and Umpqua River watersheds. At the north end, the area extends up the Columbia River to Puget Island, near the Clatsop-Columbia County line. Oregon's CNPCP was developed in partnership with several other state agencies. DEQ and DLCD are responsible for coordinating the submittal of information to EPA and NOAA that describes the enforceable authorities and related programs that address CZARA requirements.

In 1995 the state provided information on elements of its CNPCP to NOAA and EPA. The state obtained a "conditional approval" of its program. In the conditional approval, EPA and NOAA assigned the state additional management measures for forestry activities. The federal reviewers reasoned that they could require additional measures because forestry is the main land use within the Coastal Nonpoint Pollution Control Boundary and rivers in several coastal watersheds exceeded water quality standards for temperature, dissolved oxygen, and sediment.

Over the following 15 years, Oregon refined program elements and provided supplemental submittals to the federal agencies. In September 2010, a federal judge, in response to a lawsuit brought against EPA and NOAA, ordered EPA and NOAA to make a definitive decision to approve or disapprove Oregon's CNPCP. In January 2015, NOAA and EPA determined Oregon had met its obligation to address CZARA's 56 management measures but found that the state failed to adequately address the additional management measures for forestry. EPA and NOAA cited gaps in the CNPCP

plan with the need for additional water quality protections. The following forestland issues need resolution prior to full program approval.

- Additional protection in riparian areas along medium, small, and non-fish bearing streams
- Protection of landslide-prone areas
- Mitigate the impacts of road operation and maintenance and reduce sediment inputs attributed to legacy roads
- Ensure adequate stream buffers for the application of herbicides, particularly on non-fish bearing streams

As a result of the disapproval, EPA and NOAA have withheld 30% of federal 319 and 306 funds allocated to the state for each fiscal year since 2015 (Table 3). Oregon is working with EPA and NOAA to resolve the additional management measures. One of the approaches proposed by Oregon to address the deficiencies is to develop and implement a TMDLs, WQMPs, and TMDL Implementation Plans (Section 2.1.4).

Another approach that may address the remaining CNPCP forestland deficiencies is a comprehensive set of new rules and rule revisions to the Forest Practices Act required to adopted by the Board of Forestry by November 30, 2022. These new rules will lead to a wide-ranging set of actions and management practices that are expected to have a significant improving effect on water quality and narrow the circumstances and instances where additional water quality actions are needed on private forestlands to meet federally-approved water quality standards.

The new rules stem from an agreement reached in October 2021 between timber industry advocates and conservation groups. The negotiation process was convened by Oregon's Governor to seek resolution to a set of competing ballot measures intended to reform forest laws and forest landuse regulation. The legislature supported the negotiation through the passage of Senate Bill 1602 in the 2020 special session which also included provisions to addressing stream buffers for pesticides. The agreement between the accord participants led to the Private Forest Accord Report (Stevens et al 2022) and passage of three bills - Oregon Senate Bills 1501 and 1502; and House Bill 4055 that codified the agreement into law.

Table 3 Federal Section 319 and 306 funds withheld from DEQ and DLCD as a result of EPA and NOAA's disapproval of Oregon's Coastal Nonpoint Pollution Control Program.

Federal Fiscal Year	DEQ funds withheld	DLCD funds withheld
2015	$631,500 (out of $2,083,000)	$598,800 (out of $1,996,600)
2016	$435,540 (out of $2,153,000)	$637,500 (out of $2,125,000)
2017	$516,000 (out of $2,227,000)	$637,500 (out of $2,125,000)
2018	$509,100 (out of $2,202,000)	$696,900 (out of $2,323,000)
2019	$507,900 (out of $2,179,000)	$703,500 (out of $2,345,000)
2020	$501,300 (out of $2,272,000)	$724,500 (out of $2,415,000)
2021	$531,200 (out of $2,333,000)	$739,800 (out of $2,466,000)

2.7 Harmful Algal Blooms Strategy

Aquatic photosynthetic organisms, including algae, euglenoids, and bacteria, provide important resources and water quality regulation in lakes, reservoirs, streams, and rivers. However, under certain conditions, populations of these organisms can grow at an accelerated rate and result in a "bloom." In some cases – but not always – these blooms can create harmful conditions in a waterbody by degrading water quality, producing toxins dangerous to humans and animals, or a combination of both. Generally, these blooms are referred to as Harmful Algal Blooms (HABs).

Since 2000, OHA has issued public health advisories, including for drinking water consumption and recreational contact, for numerous waterbodies in Oregon, which include lakes, reservoirs, ponds, and portions of rivers, due to the presence of HABs. In 2010, DEQ began to include waters with HABs health advisories on its 303(d) list of impaired waters. In 2011 DEQ developed a HABs strategy to identify and address (prevent and control) HABs in Oregon and make recommendations for its improvement. DEQ is working on an update to the 2011 strategy that will describe the current processes by which DEQ works with federal, state, and local partners in identifying, sampling, and communicating information about HABs in freshwater ecosystems; the role and action of other agencies that support the strategy, and include new sampling and analysis strategies to examine HABS. The new approaches include in situ real time monitoring, satellite imagery, and other remote sensing approaches.

2.8 Programs to Address Toxic Chemicals

2.8.1 Toxic Reduction Strategy

DEQ's 2018 Integrated Toxics Reduction Strategy describes 14 actions to reduce toxic chemicals in Oregon's environment over the next five years. The strategy complements and supports ongoing efforts in DEQ's air, water and land quality programs by improving cross program integration, sharing best practices and filling any identified gaps. The following actions in this strategy aim to reduce toxics across the state.

- Update DEQ's "Toxics Focus List" of priority chemicals
- Monitor for priority toxics in all environmental media
- Partner with product manufacturers, vendors and users to more fully evaluate, disclose and/or label toxic ingredients
- Expand government procurement of low toxicity products and materials
- Accelerate safer chemicals alternatives assessments
- Develop and implement a metals manufacturing, coating and finishing outreach pollution prevention program
- Assess fate and transport of priority toxics from consumer products
- Evaluate effectiveness of existing mercury reduction programs to determine gaps and opportunities
- Enhance the Pesticide Stewardship Partnership program to include environmental justice communities
- Provide toxics reduction technical assistance to all DEQ programs

DEQ developed guiding principles for all of the recommended actions:

1. Build on the DEQ's 2012 Toxics Reduction Strategy in all 2018 strategy implementation and decision-making.
2. Prioritize actions with potential to address environmental justice concerns and use best practices to engage communities thought to have disproportionate impacts from toxics.
3. Integrate toxics reduction and assessment activities across all environmental media programs.
4. Effectively communicate with Oregonians about toxics data, impacts and reduction opportunities.
5. Enhance collaboration between DEQ programs and external partners.
6. Develop and use tracking mechanisms to measure and report on progress.
7. Keep the focus list a "living, breathing document," including updating it in 2019 and, as needed, in years to come.

More information about this program can be found at Oregon's toxics reduction website at https://www.oregon.gov/deq/Hazards-and-Cleanup/ToxicReduction/Pages/Reducing-Toxics.aspx.

2.8.2Water Quality Pesticide Management Team (WQPMT)

The WQPMT is an interagency team comprised of representatives from the Oregon Department of Agriculture, DEQ, OHA, Oregon Department of Forestry, Oregon Watershed Enhancement Board, and Oregon State University (technical consultant). This team facilitates and coordinates water quality activities such as monitoring, analysis and interpretation of data, effective response measures, and management solutions. The WQPMT has the following goals and objectives:

- Identify and prioritize higher risk pesticides, use patterns, and watersheds
- Facilitate water quality monitoring plans, resources, and activities
- Annually evaluate pesticide water monitoring results
- Facilitate management solutions and outreach and educational activities through local stakeholder groups to prevent or reduce pesticide contamination in water
- Improve communication with state and federal agencies, farmers, commodity groups, OSU Extension, environmental groups, industry, local water entities, and others about pesticides and water quality
- Measure progress and try new strategies if necessary

More information about this program can be found at Oregon's pesticides website at http://www.oregon.gov/ODA/programs/Pesticides/Water/Pages/AboutWaterPesticides.aspx

2.8.3Pesticides Stewardship Partnerships (PSPs)

Oregon Pesticide Stewardship Partnerships identify potential concerns and improve water quality affected by pesticide use around Oregon. The partnerships combine local expertise and water quality sampling results to encourage voluntary changes in pesticide use and management practices. At the statewide level, the PSP program is managed by the Oregon Water Quality Pesticide Management Team (Section 2.8.2). This team is composed of state agencies including DEQ, Oregon State University's Extension Service, Oregon Department of Agriculture, and Oregon Department of Forestry. The team works with diverse parties, including watershed and other natural resource groups, local landowners and growers, soil and water conservation districts and tribal

governments to find ways to reduce pesticide levels while measuring improvements in water quality and crop management. Together, the PSPs work toward measurable environmental improvements, making Oregon waters safer for aquatic life and humans through these actions:

- Identify local, pesticide-related water quality issues
- Share water quality monitoring results with local communities and other stakeholders
- Help local watershed partners identify priority pesticides, and provide context for water quality data and water quality criteria or benchmarks
- Help pesticide users identify and implement solutions that reduce priority pesticides in surface and groundwater
- Use long-term monitoring to measure success and progress
- Develop a strategic plan to guide future work that will most effectively and efficiently address priority pesticides in water

DEQ and ODA also periodically sponsor free pesticide waste collection events around Oregon for farmers and other commercial and institutional applicators. The purpose of these events is to reduce the risks to surface and groundwater from accidental release of pesticides by providing a cost-effective and safe way to manage these wastes.

Currently there are nine designated watersheds with PSPs (Section 4.2.4). These areas constitute the highest priority focus areas for the PSP program. The WQPMT may periodically evaluate monitoring data and outreach/education efforts from PSP watersheds to determine progress in meeting water quality objectives. If the WQPMT, or DEQ or ODA after conferring with the WQPMT, determines that voluntary efforts have shown to be insufficient to address concentrations of pesticides above water quality criteria or aquatic life benchmarks/criteria, then a regulatory approach may be evaluated. Individual PSPs watersheds may be discontinued in favor of Clean Water Act regulatory approaches by DEQ or by Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) regulatory approach. The FIFRA regulatory approach may include increased compliance monitoring and enforcement by ODA, or additional restrictive language on EPA approved pesticide labels.

More information about this program can be found at https://www.oregon.gov/oda/programs/pesticides/water/pages/pesticidestewardship.aspx.

2.8.4 Pesticide Analytical and Response Center (PARC)

The Pesticide Analytical and Response Center (PARC) was created by executive order in 1978. The program was reauthorized in 1991 under ODA as ORS 634.550.

PARC is mandated to perform the following activities with regard to pesticide-related incidents in Oregon that have suspected health or environmental effects: Collect incident information, mobilize expertise for investigations, identify trends and patterns of problems, make policy or other recommendations for action, report results of investigations, and prepare activity reports for each legislative session.

PARC does not have regulatory authority. Its primary function is to coordinate investigations to collect and analyze information about reported incidents. This function supports PARC's most fundamental purpose, to identify trends and patterns, and consequently make recommendations, when warranted, to state agencies.

Recommendations may include public education and industry consultation, regulatory and legislative changes, and other possible approaches. Member agencies conduct most of the investigations and take any necessary enforcement action(s). The eight member agencies include OHA, ODFW, DEQ, ODF, Oregon Occupational Safety and Health Administration, Office of the State Fire Marshal, Oregon Poison Center, and ODA.

Investigation coordination includes collecting reports produced by member agencies and consultation as necessary with an OSU toxicologist. Other governmental bodies may also participate in the reporting or investigation of an incident.

2.9 Environmental Justice

Oregon's environmental justice law, established in 2008 and revised in 2022, requires state natural resource agencies to follow prescribed steps to provide greater public participation and ensure involvement of people who may be affected by agency actions. Senate Bill 420, which created the law, and amendments from House Bill 4077 created and funds an Environmental Justice Council.

The council, consisting of 13 members appointed by the governor, is charged with:

- Advising and providing a biannual report to the Governor on environmental justice issues.
- Advising natural resource agencies on environmental justice issues, including community concerns and public participation processes.
- Identifying, in cooperation with natural resource agencies, environmental justice communities that may be affected by the agencies' environmental decisions.
- Meeting with environmental justice communities and making recommendations to the Governor about concerns raised by these communities.
- Defining environmental justice issues in the Oregon.
- Upon the request of a natural resource agency, provide consultation and review of a natural resource agency's proposed administrative rules.
- Develop an environmental justice mapping tool, with support from DEQ, Oregon's Enterprise Information Services, the Institute for Natural Resources, the Portland State University Population Research Center, and the Oregon Health Authority.

The law directs Oregon's natural resources state agencies to take the following actions to ensure greater public participation and consider the effects of potential agency actions on environmental justice issues:

- Hold hearings at times and in locations that are convenient for people in the communities affected by decisions stemming from the hearings.
- Hold public outreach activities in the communities that will be affected by decisions of the agency.
- Create a citizen advocate position responsible for encouraging public participation, ensuring that the agency considers environmental justice issues, and informing the agency of the effect of its decisions on communities traditionally under-represented in public processes.

Lastly, the law requires natural resource agency directors, and other agency directors as the governor may designate, to report annually to the Environmental Justice Council and governor on agencies' efforts to address environmental justice issues, increase public

participation of individuals and communities affected by agencies' decisions, determine the effect of the agencies' decisions on traditionally under-represented communities, and improve plans to further the progress of environmental justice in Oregon.

In 1997 DEQ adopted an environmental justice policy (DEQ, 1997). The policy includes principles for making environmental equity inherent in the way the agency does business. Specific actions that are applicable to implementation of Oregon's nonpoint source program include:

- Ensure representation of minority and low-income interests on advisory committees
- Schedule agency meetings in facilities that meet American Disability Act requirements
- Coordinate water quality data collection with other agencies and tribal nations
- Ensure that water quality policy is consistent statewide and implemented consistently in locations where minority and low income populations reside
- Ensure any risk assessment (typically conducted during development of water quality standards), includes adequate data on levels of fish consumption or water contact recreation by minority communities

2.10 Funding and Incentive Programs

Per the requirements in 33 § 1329(b)(2)(E), this section briefly describes available funding sources and other incentive programs that the State uses to support implementation of practices and measures that support this plan and other watershed-based plans. Many programs are partnerships between the state and federal government.

2.10.1 USDA Natural Resource Conservation Service Funding Programs

The USDA Natural Resources Conservation Service's (NRCS) conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters. Public benefits include enhanced natural resources that help sustain agricultural productivity and environmental quality while supporting continued economic development, recreation, and scenic beauty.

This section describes many of the funding programs administered by the NRCS. Most of these programs are funded through the Agriculture Improvement Act of 2018 (signed into law on 12/20/2018). Between fiscal years 2014 and 2020, the total annual obligations varied but ranged between $75.5 million and $141.7 million. The total sum obligated during that period was $673.3 million.

2.10.1.1 NRCS Agricultural Conservation Easement Program (ACEP)

The Agricultural Conservation Easement Program is administrated by the USDA Natural Resources Conservation Service. The program's purpose is to conserve wetlands, grasslands, and working farms and ranches with conservation easements. The program was created as part of the Agricultural Act of 2014 by consolidating the

Farm and Ranch Lands Protection Program, Grassland Reserve Program, and Wetlands Reserve Program. The program is voluntary offering landowners the opportunity to protect, restore, and enhance wetlands, grasslands, and working farms and ranches through the use of conservation easements on their properties.

For the wetland component, the NRCS goal is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This program offers landowners an opportunity to establish long-term conservation and wildlife practices and protection. Lands eligible are wetlands farmed under natural conditions; farmed wetlands; prior converted cropland; farmed wetland pasture; certain lands that have the potential to become a wetland as a result of flooding; rangeland, pasture, or forest production lands where the hydrology has been significantly degraded and can be restored; riparian areas which link protected wetlands; lands adjacent to protected wetlands that contribute significantly to wetland functions and values; and wetlands previously restored under a local, state, or federal program that need long-term protection.

Conservation easements protect working farms and ranchlands and their natural resources by limiting non-agricultural uses landowners sign a deed of easement restricting development of the property and agree to maintain the land according to an approved conservation plan. NRCS may contribute up to 50 percent of the fair market value of the agricultural land easement. The remaining portion comes from local and state sources, including grants from the state distributed by the Oregon Watershed Enhancement Board.

From fiscal years 2014 to 2020, NRCS obligated a total of $46.5 million in Oregon under the Agricultural Conservation Easement Program. $13.9 million of this total was for technical assistance provided by NRCS and $32.6 million went toward easement payments. These totals include lands formally enrolled under the Farm and Ranch Lands Protection Program, Grassland Reserve Program, and Wetlands Reserve Program. Between 2014 and 2020 a total of 14,078 acres in Oregon were enrolled in the program.

2.10.1.2 Conservation Reserve Program (CRP)

The CRP program is administered by the Farm Service Agency. NRCS is tasked with providing technical assistance to landowners enrolled in CRP. CRP provides annual rent to farm and ranch landowners in exchange for removing environmentally sensitive land from production and planting species that improve conservation outcomes. The contract period is typically 10-15 years.

From fiscal years 2014 to 2020, the Conservation Reserve Program obligated a total of $4.5 million for technical assistance. Between 2014 and 2020 a total of 261,758 acres in Oregon were newly enrolled in the program.

2.10.1.3 Watershed and Flood Prevention Operations (WFPO) Program

The Watershed Protection and Flood Prevention Program helps units of federal, state, local, and tribal governments protect and restore watersheds up to 250,000 acres.

This program, authorized by the Watershed Protection and Flood Prevention Act (PL-566), provides for cooperation between the federal government and the states and their political subdivisions to work together to prevent erosion; floodwater and sediment damage; to further the conservation development, use and disposal of water; and to further the conservation and proper use of land in authorized watersheds.

2.10.1.4 Conservation Stewardship Program (CSP)

The Conservation Stewardship Program (CSP) is an NRCS effort to help agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resource concerns. CSP pays participants for conservation performance— the higher the performance, the higher the payment. CSP provides two possible types of payments through five-year contracts: annual payments for installing new conservation activities and maintaining existing practices; and supplemental payments for adopting a resource-conserving crop rotation. Applicants may include individuals, legal entities, joint operations, or Indian tribes and eligible lands include private and tribal agricultural lands, cropland, grassland, pastureland, rangeland, and nonindustrial private forest land.

From fiscal years 2014 to 2020, the NRCS obligated a total of $215.9 million in Oregon under the Conservation Stewardship Program. $32.7 million of this total was for technical assistance provided by NRCS and $183.2 million went towards conservation payments. In 2020, there were 469,438 acres in Oregon enrolled in the program.

2.10.1.5 Emergency Watershed Protection Program (EWP)

The Emergency Watershed Protection Program is administered by the USDA Natural Resources Conservation Service. It is intended to help local communities recover from a natural disaster. The program offers technical and financial assistance to relieve imminent threats to life and property caused by floods, fires, windstorms and other natural disasters that impair a watershed. A major goal is to restore land, to the maximum extent possible, to its natural condition.

From fiscal years 2014 to 2020, the NRCS obligated a total of $3.9 million in Oregon under the Emergency Watershed Protection Program. $700,000 of this total was for technical assistance provided by NRCS and $3.2 million went toward financial assistance.

2.10.1.6 Environmental Quality Incentives Program (EQIP)

The Environmental Quality Incentives Program is administered by the USDA Natural Resources Conservation Service. The program provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver a number of environmental benefits including for water quality.

From fiscal years 2014 to 2020, the NRCS obligated a total of $196.8 million in Oregon under the Environmental Quality Incentives Program, including $37.2 million for technical assistance and $159.6 million for financial assistance. In 2020, a total of 224,587 acres in Oregon were enrolled in the program.

2.10.2 Clean Water State Revolving Fund

DEQ's Clean Water State Revolving Fund (CWSRF) program offers below-market interest rate loans to public agencies for planning, design, construction of water quality improvement activities, including:

- Wastewater collection, treatment, water reuse and disposal systems
- Nonpoint source water pollution control projects
- Development and implementation of management plans for federally-designated estuaries in Oregon (Tillamook Bay and Lower Columbia River)

Eligible public agencies include municipalities, counties, state agencies, special districts (including sanitary districts, soil and water conservation districts, irrigation districts and ports), intergovernmental entities and federally recognized tribal governments. DEQ partners with Oregon agencies to implement nonpoint pollution control projects that demonstrate water quality benefits and meet water quality and public health standards.

The program has a sponsorship option for a nonpoint source project combined with a point source project that can reduce overall debt service and interest for the borrower. The fund offers local community loans as "pass through" financing to an eligible public agency to provide loans to local borrowers for nonpoint source projects. DEQ can also provide financing to Community Development Financial Institutions for septic tank repair, replacement and connection to sewer.

In order to receive CWSRF funds in Oregon, all proposed nonpoint source control projects must support the implementation of a current EPA approved state nonpoint source management program plan (eligibility criteria 1a described below). Activities, practices, and strategies that are focused on nonpoint water quality pollution control and implement any of the plans listed below may qualify as nonpoint source control activities that support implementation of this plan.

- TMDLs
- TMDL Water Quality Management Plans
- TMDL Implementation Plans
- Stormwater Management/Master Plans
- Watershed Council Action Plans
- Soil and Water Conservation District Strategic Plans
- Source Water Protection Plans
- Water Conservation Plans
- Oregon Plan for Salmon and Watersheds
- Oregon's Coastal Nonpoint Pollution Control Plan (CNPCP)
- National Estuary Comprehensive Conservation and Management Plans
- Federal Water Quality Restoration Plans
- Ground Water Management Area Action Plans
- Agriculture Water Quality Management Area Plans
- State Forest Management Plans
- DLCD's water quality related model code guidebooks

- Watershed-based plans and alternative watershed-based plans as defined by EPA's 319 grant guidance (USEPA, 2013). In Oregon, many watershed planning documents including those identified in this section may collectively serve as watershed-based plans or alternative plans.
- Any other relevant nonpoint water pollution control plan as determined by DEQ

To be eligible for CWSRF assistance, a project must meet criteria under Section 603(c) of the Clean Water Act. For nonpoint source pollution control projects, these broadly include:

1. **Eligibility under Clean Water Act Section 319**: Publicly or privately owned projects that implement the States nonpoint source management programs established under Section 319 of the Clean Water Act. The eligibility criteria for Section 319 projects include projects that
   - **a.** Support the implementation of a current EPA approved state nonpoint source management program plan (this plan)
   - **b.** Support implementation of watershed-based plans, which include TMDLs, water quality management plans, TMDL implementation plans, and other plans that collectively contain the 9-Key Elements for an EPA watershed-based plan or alternative plan
   - **c.** Do not directly implement a final National Pollutant Discharge Elimination System (NPDES) permit

   The CWSRF program works with DEQ's nonpoint source program staff to ensure that projects are consistent with the approved state Nonpoint Source Management Program plan.
2. **Projects that develop and implement an estuary Comprehensive Conservation and Management Plan under Section 320 of the Clean Water Act**. Comprehensive Conservation and Management Plans (CCMPs) are long-range plans developed by each National Estuary Partnership. They contain actions to address water quality, living resources, and habitat challenges in the estuary and the surrounding area called the "study area." The CWSRF program works with the appropriate National Estuary Partnership organization to ensure that projects funded under the Section 603(c)(3) eligibility are consistent with the CCMP.
3. **Projects that develop or implement watershed pilot projects under Clean Water Act Section 122.** Eligible projects are related to at least one of the six areas:
   a) **Watershed Management of Wet Weather Discharges**: Includes the management of municipal combined sewer overflows, sanitary sewer overflows, and stormwater discharges.
   b) **Stormwater Best Management Practices**: Include activities that manage, reduce, treat, recapture, or reuse municipal stormwater.
   c) **Watershed Partnerships**: Include efforts to demonstrate cooperative ways to address nonpoint sources of pollution to reduce adverse impacts on water quality.

d) **Integrated Water Resource Planning**: Facilitates the coordinated management and protection of surface water, ground water, and stormwater resources on a watershed or subwatershed basis to meet the objectives, goals, and policies of the CWA.
e) **Municipality-Wide Stormwater Management Planning**: Identifies the most effective placement of stormwater technologies and management approaches to reduce water quality impairments from stormwater on a municipality-wide basis.
f) **Increased Resilience of Treatment Works**: Eligible projects are those that increase the resilience of treatment works to manmade or natural disasters, such as extreme weather events and sea-level rise. This includes efforts to assess future risks and vulnerabilities.

4. **EPA Needs Categories**. The Clean Water State Revolving Fund program finances projects that address EPA Needs Categories. The following represent nonpoint source pollution control and "other" categories including best management practices for projects eligible for CWSRF funding:

   a) **Agriculture BMP's, Croplands**: Covers nonpoint source pollution control activities related to agricultural activities such as plowing, pesticide spraying, irrigation, fertilizing, planting and harvesting. Some typical best management practices to address agriculture (cropland) needs are conservation tillage, nutrient management, irrigation water management, riparian buffer and filter strips, and structural (i.e. waterways and terraces) BMPs.
   b) **Agriculture BMP's, Animals**: Covers nonpoint pollution control activities related to agricultural activities related to animal production such as confined animal facilities and grazing. Some typical best management practices to address agriculture (animal) needs are animal waste storage facilities, animal waste nutrient management, composting facilities, and planned grazing.
   c) **Silviculture**: Covers nonpoint source pollution control activities related to forestry activities such as removal of streamside vegetation, road construction and use, timber harvesting, and mechanical preparation for the planting of trees. Some typical BMPs used to address silviculture needs are pre-harvested planning, streamside buffers, road management, revegetation of disturbed areas and structural practices, and equipment (i.e. sediment control structures, timber harvesting equipment). Eligible water quality projects that remediate or prevent pollution from silviculture activities include capital projects, or portions of projects, that control erosion from access roads, maintain the stability of stream banks, ensure the revegetation of harvested areas, and control the introduction of pesticides and fertilizers into waterways. The purchase of forested land for water quality purposes is also eligible.
   d) **Groundwater, Unknown Source**: Covers nonpoint source pollution control activities related to ground water protection such as well head and recharge area protection activities. Any activity that can be attributed to a specific cause of ground water pollution, such as leaking storage tanks, soil contamination in a brownfield, or leachate from a sanitary landfill, should be reported to that more specific category. Desalinization projects that protect or restore groundwater should be reported under that category.
   e) **Marinas**: Covers nonpoint source pollution control activities that relate to boating and marinas, such as poorly flushed waterways, boat maintenance activities, discharge of sewage from boats, and the physical alteration of

shoreline, wetlands, and aquatic habitat during the construction and operation of marinas as well as stormwater runoff from marina parking lots. Some typical BMPs used to address needs at marinas are bulk heading, pump out systems, and oil containment booms.

f) **Resource Extraction**: Covers nonpoint source pollution control activities that relate to mining and quarrying activities. Resource extraction management practices can prevent or reduce the availability, release, or transport of substances that adversely affect surface and ground water. Examples of BMPs include detention berms and seeding or revegetation.

g) **Brownfields**: Covers nonpoint source pollution control activities related to land that was developed for industrial purposes and then abandoned, which may have residual contamination. All work at brownfields should be included in this category regardless of the activity. Some typical activities used to clean up of brownfields sites are groundwater monitoring wells, on site treatment of contaminated soils and groundwater, and capping to prevent stormwater infiltration.

h) **Storage Tanks**: Covers nonpoint source pollution control activities for tanks designed to hold gasoline or other petroleum products or chemicals. The tanks may be located above or below ground level. Some typical BMPs are spill containment systems, onsite treatment of contaminated soils or groundwater, and upgrade, rehabilitation, or removal of petroleum/chemical storage tanks. Note: Facilities or measures that are part of nonpoint source pollution control activities at abandoned, idle and underused industrial sites (brownfields) should be included in the Brownfields category.

i) **Sanitary Landfill**: Covers nonpoint source pollution control activities related to sanitary landfills designed as disposal sites for nonhazardous solid wastes rather than hazardous solid waste or biosolids. Some typical BMPs used to address needs at sanitary landfills are leachate collection, onsite treatment, gas collection and control, capping and closure. They are designed to address water quality or public health problems at sanitary landfills.

j) **Hydromodification/Habitat Restoration**: Covers nonpoint source pollution activities related to habitat protection and restoration, including BMPs designed to address water quality or public health problems associated with channelization and channel modification, dams, and stream bank and shoreline erosion. Examples of projects include shoreline activities (i.e. swales, filter strips, re-establishing riparian vegetation, and riparian buffers/filter strips), instream activities (i.e. fish ladders), and capital costs associated with the control of invasive and vegetative and aquatic species. Note: any habitat restoration projects involving stormwater management are reported under Category: Stormwater – Green Infrastructure.

k) **Individual/Decentralized Systems**: Covers nonpoint source pollution control activities related to rehabilitating or replacing onsite wastewater treatment systems (OWTS) or clustered (community) systems, which can include a combination of natural and mechanical processes designed to collect, treat, and disperse or reclaim wastewater from a single dwelling or building. Septic tanks and holding tanks are examples. It also includes the treatment portion of other decentralized sewage treatment technologies. Costs related to developing and implementing onsite management districts are included (but not the costs of ongoing operations of such districts). Costs could also include the limited collection systems associated with the decentralized system. This category does not include associated with changing a service area from

decentralized wastewater treatment to a publicly owned centralized treatment system. Costs to construct a publicly owned collection and treatment system should be reported in Secondary Wastewater Treatment, Advanced Wastewater Treatment, or both. Note: Activities related to installing sewers to connect the service area to an existing collection system are reported under the category New Collector Sewers and category New Interceptor.

l) **Land Conservation**: Includes costs associated with land acquisition to protect water quality. Note: any land purchase that is an integral part of a wastewater project (i.e. site location, land application) should be reported under the appropriate centralized wastewater treatment category.

m) **Stormwater, Grey Infrastructure**: Includes costs associated with planning, design, and construction of conveying stormwater via pipes, inlets, road side ditches, and other similar mechanisms. This category also includes the costs of activities associated with planning, design, and construction of treating stormwater with wet ponds, dry ponds, manufactured devices and/or BMPs designed to address stormwater pollution control needs associated with new or existing development in urban or rural settings. Pollution control needs may include erosion, sedimentation and discharge of pollutants (e.g., inadequately treated wastewater, oil, grease, road salts and toxic chemicals) into water resources from construction sites, roads, bridges, parking lots and buildings. For nonpoint source, stormwater facilities must not regulated by a NPDES permit (i.e. MS4 permit).

n) **Stormwater, Green Infrastructure**: Includes costs associated with planning, design, and construction of low impact development and green infrastructure, such as bio-retention, constructed wetlands, permeable pavement, rain gardens, green roofs, cisterns, rain barrels, vegetated swales, restoration of riparian buffers and flood plains. For nonpoint source, stormwater facilities must not regulated by a NPDES permit (i.e. MS4 permit).

o) **Estuary:** Includes best management practices designed to protect the estuarine ecosystem. Examples include habitat for aquatic species, fisheries, oyster bed, and shellfish restocking and restoration, fish ladders, rejuvenation of submerged aquatic vegetation, artificial reef establishment, control of invasive vegetative and aquatic species, and water control structures for flow regime and salinity.

p) **Energy Conservation, Energy Efficiency**: Includes costs associated with the use of improved technologies and practices that result in reduced energy consumption of water quality projects. Energy efficient equipment and components can cover such things as lighting, HVAC, process equipment, and electronic systems.

q) **Energy Conservation, Renewable Energy**: Includes costs associated with the production of renewable energy. Examples include wind and solar, methane capture and energy conversion equipment, bio-solids drying/dewatering and energy conversion equipment, co-digestion, combined heat and power (CHP) systems, hydroelectric power that harness wastewater flows to, from, or within a treatment works.

r) **Water Conservation, Water Efficiency**: Includes costs associated with reducing the demand for POTW capacity through reduced water consumption. Examples include water meters, plumbing fixture retrofits or replacement, water efficient appliances, water efficient irrigation equipment (i.e. moisture and rain sensing equipment), and education programs.

s) **Water Reuse**: Includes costs associated with the treatment and conveyance of wastewater that is being reused (recycled water), including associated rehabilitation/replacement needs. Examples include distribution lines and equipment for application of effluent. The costs associated with additional unit process to increase the level of treatment to potable or less than potable but greater than that normally associated with surface discharge needs are reported as Advanced Treatment.

t) **Planning and assessment**: Includes costs for developing plans to address water quality and water quality-related public health problems. Examples include Watershed-Based Plans (including 319 Watershed-Based Plans) and Total Maximum Daily Load Implementation Plans.

These categories are consistent with best management practices to address nonpoint source pollution in other sections of the Oregon Nonpoint Source Management Program Plan, which can also be referenced for purposes of determining eligibility and consistency with this plan for the CWSRF program.

2.10.3 Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program (CREP) works similar to the NRCS CRP program in that it provides annual payments to landowners who enroll in the program but is targeted to specific state conservation objectives. The program, created in 1998, is a partnership between Oregon and the U.S. Department of Agriculture Farm Service Agency (FSA), with technical assistance and outreach support provided by the Natural Resources Conservation Service, Soil and Water Conservation Districts, watershed councils, and other regional organizations. The purpose of the program is to restore, maintain, and enhance streamside areas along agricultural lands to benefit fish, wildlife, and water quality. Landowners enrolled in CREP receive annual rental payments, incentive payments, and cost share payments to implement conservation measures such as planting trees and shrubs, installing fencing, or installing livestock watering facilities. Oregon's program is unique in the nation in having a cumulative impact incentive payment where landowners who enroll more than one-half of a 5-mile stream segment receive greater compensation. Similarly, landowners who lease water for instream purposes on acreage enrolled in CREP are paid higher rental rates.

The Oregon Watershed Enhancement Board (OWEB) funds and supports CREP technical assistance positions around the state and provides programmatic coordination and training on behalf of the State of Oregon. The Oregon Department of Forestry (ODF) works with local CREP technicians to provide technical review and development of planting plans when needed. The Oregon Water Resources Department contributes staff time and expertise to the program in their analysis of instream water rights. The Oregon Department of Fish and Wildlife (ODFW) provides consultation on habitat issues and compliments CREP with an exclusion-fencing program. The Oregon Department of Agriculture contributes staff resources to the selection and evaluation of technical assistance programs.

Between 2014 and 2019 Oregon contributed a total of $5.8 million to the CREP program. $2.4 million for cost share payments, $800,000 in programmatic assistance, and $2.6 million in technical assistance and training grants. Regional and local groups contributed $2.5 million for technical assistance and training over the same period. As of 2019,

43,010.77 acres were enrolled in CREP. These numbers are reported annually in OWEB's CREP annual report available at https://www.oregon.gov/oweb/grants/Pages/crep.aspx.

2.10.4 Drinking Water Providers Partnership

The Drinking Water Providers Partnership is a collaboration of USDA Forest Service Region 6, EPA Region 10, the U.S. Bureau of Land Management OR/WA Office, DEQ, Washington Department of Health and the Geos Institute, Wild Earth Guardians and Freshwater Trust. Together, the partners coordinate an annual, competitive grant solicitation and award program for environmental conservation and restoration projects in municipal watersheds across the Northwest. The partners share a common vision that watershed restoration is an important and effective way to provide clean, inexpensive drinking water to communities and protect native fish populations, particularly when downstream and upstream users work together.

2.10.5 Drinking Water Revolving Loan Fund

The Oregon Health Authority administers the Drinking Water Revolving Loan Fund which provides grants of up to $30,000 per water system for source water protection activities, monitoring, and planning to reduce risk in Drinking Water Source Areas. Loans are provided for improving drinking water treatment, source water protection activities, or land acquisition in source areas.

2.10.6 Landowner Incentive Program

The Landowner Incentive Program is administered by the U.S. Fish and Wildlife Service. The incentive program provides federal grant funds to the states, the District of Columbia and insular areas to protect and restore habitats on private lands, to benefit federally listed, proposed or candidate species or other species determined to be at-risk.

Grant funds must be used to establish or supplement State landowner incentive programs to benefit species identified in the State's Comprehensive Wildlife Conservation Strategy (State Wildlife Action Plan) or classified as a special concern by the state. These grant funds may also be used to provide technical and financial assistance to private landowners for habitat protection and restoration.

2.10.7 Oregon Watershed Enhancement Board (OWEB) Funding Programs

The Oregon Watershed Enhancement Board is a state agency that provides grants to help Oregonians take care of local streams, rivers, wetlands, and natural areas. OWEB grants fund a variety of activities that local partners have identified as priorities in watershed assessments, action plans, or regional plans such as ESA Recovery Plans, Groundwater Management Plans, or TMDLs. Restoration actions address watershed process and functions necessary to support natural processes that are indicative of healthy watersheds. This includes, but is not limited to improving water quality, water quantity, habitat complexity, flood plain interaction, vegetation structure, and species diversity.

OWEB grants are funded from the Oregon Lottery, federal dollars, and salmon license plate revenue, along with other smaller funding sources. Since 1999, 7.5% of Oregon Lottery Funds have been allotted to OWEB's Restoration and Protection subaccount. These funds are set aside for the public purpose of financing the restoration and protection of native salmonid populations, watersheds, fish and wildlife habitats, and water quality in Oregon. The funding amount varies for each biennium; for the 2013-2015 to the 2019-2021 bienniums, the allocation ranged between $51.9 million and $82.2 million per biennium. The total sum for that period was $262.2 million. These funds are distributed as follows:

- 35% to the Watershed Conservation Operating Fund. These funds are allocated by the Legislature, and described in ORS 541.945, to support the efforts of five state agencies, including OWEB, to conserve and restore watershed health, protect water quality, and involve Oregonians in voluntary actions to protect the ecological health of the state.
- 65% to Watershed Conservation Grant Fund. These funds are allocated by OWEB through the agency's grant programs in support of projects that protect or restore watershed functions and native fish and wildlife habitat.

OWEB is led by an 18-member citizen board drawn from the public at large, tribes, state natural resource agency boards and commissions, and federal agencies.

OWEB offers a variety of grant types and programs. Section 2.10.7.1 through Section 2.10.7.10 summarize the different types of grants and priorities that OWEB funds. In addition to these grant programs, OWEB funds and provides support for the Conservation Reserve Enhancement Program, Conservation Effectiveness Partnership, and Coordinated Streamside Management and Strategic Implementation Areas. These partnership programs are described further in Section 2.11.

OWEB also manages the Oregon Watershed Restoration Inventory. The database originated with the Oregon Plan for Salmon and Watersheds. The majority of inventory entries represent voluntary actions of private citizens and landowners who have worked in partnership with federal, state, and local groups to improve aquatic habitat and water quality conditions. The inventory is the single largest restoration information database in the western United States with submissions on nearly 19,000 projects completed since 1995.

2.10.7.1 OWEB Monitoring Grants

In accordance with ORS 541.956(4), OWEB will consider grant applications that:

- Describe current watershed conditions by gathering and analyzing data, and making monitoring results publicly available
- Establish trends about watershed conditions by gathering and analyzing data, and making monitoring results publicly available
- Evaluate the specific effects of a restoration or acquisition project or program by comparing similar watershed components before and after implementation of a restoration or acquisition project or program, and making monitoring results publicly available

Eligible monitoring types includes status and trend, project effectiveness, landscape effectiveness, and rapid bio-assessment. Most water quality monitoring results are

eventually stored in DEQ's Ambient Water Quality Monitoring System. Results in the monitoring system are accessible to the public from DEQ's website.

2.10.7.2 OWEB Restoration Grants

As outlined in OAR 695-010-0010, OWEB provides grants for watershed projects that protect or restore watershed functions. The watershed restoration priorities funded with restoration grants are outlined in OAR 695-010-0030. The priorities include:

1. Altered watershed functions affecting water quality, water flow, and the production capacity for fish
2. Removal or remediation of structures such as roads, culverts, and channels to improve water quality and/or fish habitat
3. Land management practices to address the causes of chronic disturbances to the watershed
4. Direct evidence of collaboration between stakeholders and agencies over single-party projects
5. Upslope and upstream treatments

2.10.7.3 OWEB Stakeholder Engagement

As outlined in OAR 695-015-0010, OWEB provides grants for stakeholder engagement projects that are necessary for carrying out eligible restoration and acquisition projects, or programs that lead to development of other eligible projects.

To qualify as necessary for carrying out an eligible restoration or acquisition project, the project must be tied to a specific geography, address clearly articulated habitat or watershed or ecosystem function goals for that geography, and identify a clear path toward achieving the restoration or acquisition measurable outcomes within a reasonable and specific timeframe.

2.10.7.4 OWEB Technical Assistance Grants

As outlined in OAR 695-030-0005, OWEB provide grants for resource assessment and planning, technical design and engineering, and organizational technical assistance that are necessary for carrying out eligible restoration and acquisition projects, or programs that lead to development of eligible projects.

2.10.7.5 OWEB Land Acquisition Program

The Oregon Constitution specifies that OWEB may fund projects involving the purchase of interests in land from willing sellers for the purpose of maintaining or restoring watersheds and habitat for native fish or wildlife.

Entities that are able to hold OWEB-funded interests in land, as long as the entity continues to use the land for the purposes specified in the constitution, include:

- Local, state, and federal agencies
- Tribes
- Not-for-profit land conservation organizations and land trusts
- State institutions of higher education
- Independent not-for-profit institutions of higher education or political subdivisions of the state

2.10.7.6 OWEB Water Acquisition Program

As outlined in OAR 695-046-0010, the OWEB water acquisition program supports the planning and implementation of the acquisition of an interest in water from a willing seller across the state. Water acquisition grants can support a range of project activities from permanent transfers and temporary leases of instream water rights to incentive-based voluntary curtailments by irrigators. The purpose of this program is to increase instream flow to address the conservation needs of habitats and species and to improve water quality.

2.10.7.7 Coast Wetlands Grants

The U.S. Fish and Wildlife Service National Coastal Wetlands Conservation Grant Program was established to acquire, restore, and enhance wetlands in coastal states through competitive matching grants to state agencies. The primary goal of the program is the long-term conservation of coastal wetland ecosystems. Only legislatively approved state agencies may submit applications. Since 2013, OWEB has been an approved agency. OWEB serves as the official grantee of the federal award and makes the federal funds available to local conservation and restoration partners through sub-grants. All sub-grants are subject to the rules and guidelines of OWEB's grant programs. All projects must ensure long-term conservation. Eligible projects include:

- Acquisition of a real property interest (permanent conservation easement or fee title) in coastal lands or coastal wetlands ecosystems from willing sellers
- Restoration, enhancement, or management of coastal wetlands ecosystems

2.10.7.8 OWEB Focused Investment Partnerships

As outlined in OAR 695-047-0010, a Focused Investment Partnership is an OWEB investment that:

- Addresses a board-identified Focused Investment Priority of significance to the state
- Achieves clear and measurable ecological outcomes
- Uses integrated, results-oriented approaches as identified through a strategic action plan
- Is implemented by a high-performing partnership

FIP funding provides partnerships with up to $12 million over six years. FIP project initiatives must demonstrate clear and measurable restoration outputs and ecological outcomes that support limiting factors outlined in a federal recovery and/or state conservation plan(s).

Partnerships applying for FIP funding must have a strategic action plan that addresses all components detailed in OWEB's strategic action plan guidance. A strategic action plan defines the geographic extent, timeframe, and range of strategies and actions that will lead to the long-term goals of a partnership.

The OWEB Board approves focused investment priorities. The priorities are revisited at least every five years and determined with public input and scientific rigor. The priorities were last updated in 2019. Current priorities are found on OWEB's website: https://www.oregon.gov/oweb/grants/Pages/fips.aspx.

2.10.7.9 OWEB Operating Capacity Grants

As outlined in OAR 695-040-10, Operating capacity grants are awarded biennially and help support the operating costs of effective watershed councils (see Section 2.11.6) as they engage people in their communities to participate in collaborative, voluntary restoration of watersheds.

2.10.7.10 OWEB Small Grants

The Small Grant Program is an easy-to-engage-in, competitive grant program that awards up to $15,000 for on-the-ground restoration projects principally carried out on private lands across Oregon. This program responds to a need for local decision-making about watershed restoration opportunities on a shorter timeframe than is available under OWEB's regular grant program.

As outlined in OAR 695-035-10, the goals of the program are to support implementation of the Oregon Plan for Salmon and Watersheds, and to support projects designed to improve water quality, water quantity, and fish and wildlife habitat, including those developed to address Total Maximum Daily Loads, Agricultural Water Quality Management Area Plans, urban nonpoint source pollution management plans, and the Board of Forestry's Forestry Program for Oregon.

2.10.8 Forest Legacy Program

The Forest Legacy Program is a national program that addresses privately-owned forestlands that face threats of conversion to non-forest use by development pressures. The goal of the program is to promote stewardship and sustainable management of private forest lands by maintaining working forests that conserve important forest resource and conservation values.

The program provides funds for the purchase of development rights on eligible private forestlands. The purchases can be through either conservation easement or fee-title acquisition into public ownership.

All properties entered into the program – either through conservation easement, fee acquisition or donation – have their forest resources and conservation values protected and managed in accordance with a state forester-approved forest stewardship plan.

The program operates in designated forest legacy areas where important forests may be lost to non-forest uses. The program seeks projects that strengthen local communities through state, local and private partnerships in conservation. Landowner participation is voluntary. Additional resources on the program can be found at https://www.oregon.gov/odf/aboutodf/Pages/grantsincentives.aspx.

2.10.9 Partners for Fish and Wildlife Program

The Partners for Fish and Wildlife Program is an effort by USFWS to support landowners, federal and state agencies, and non-governmental organizations interested in habitat restoration on private land. The program offers financial and technical assistance with priority given to projects that will have an impact on rare, threatened, or endangered species. Assistance may be provided for many habitat protection or enhancement best management practices including livestock exclusion fencing,

alternate water supply construction, streambank stabilization, restoration of in-stream aquatic habitats, longleaf or shortleaf pine planting, prescribed burning, native grass and forb planting, wetland restoration/enhancement or riparian reforestation.

2.10.10 Performance Partnership Agreement and Grant

A portion of DEQ's nonpoint source program activities are funded through the EPA and DEQ Performance Partnership Grant and Agreement. The agreement is a two-year agreement that describes how DEQ and EPA will work together to protect Oregon's environment in relation to DEQ's implementation of federally delegated environmental programs. The agreement serves as the work plan for EPA's Performance Partnership Grant.

The two-year agreement documents the strategic goals, joint priorities, objectives, and commitments of EPA and DEQ. DEQ takes public comment on the agreement every two years when it is revised.

The Performance Partnership Grant combines multiple federal grants authorized under various programs into one grant. The grant funds most relevant to the nonpoint source program come from EPA's annual Clean Water Act Sections 319 and 106 grants. In the nonpoint source program, the 319 contribution to the Performance Partnership Grant is used to support DEQ staff that work on TMDL development and implementation, administration of DEQ's 319 grant program, and administration of this nonpoint source program plan and annual reporting. Clean Water Act 106 funds are used to support water quality monitoring, groundwater protection, the water quality standards and assessment program, TMDL development and implementation, and the NPDES water quality permitting program. The contribution from these funds to the Performance Partnership Grant varies but has typically been about $4.67 million and supported the equivalent of about 27 full time equivalent (FTE) staff positions at DEQ, including some positions in the NPDES water quality permitting program.

2.10.11 Section 319 Program

The 1987 amendments to the Federal Clean Water Act established the Section 319 nonpoint source management program. Under Section 319, EPA provides funding to states, territories and tribes to implement a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects.

EPA provides these funds to DEQ. In Oregon the award amount has been reduced every year (about 30%) since 2015 until actions will take place to address the deficiencies in the Coastal Nonpoint Control Plan.

DEQ uses the 319 funds from EPA for two purposes:

- To support DEQ staff that administer and implement the 319 grant program and the nonpoint source program plan (this plan).
- As pass through grants (sub-grants) to community groups to implement watershed-based plans or alternative plans via DEQ's 319 Nonpoint Source Implementation Grant Program.

DEQ administers Oregon's 319 nonpoint source implementation grant program. Each year DEQ issues the 319 nonpoint source implementation grant Request for Proposals. The RFP seeks proposals for nonpoint source pollution control projects in priority watersheds. The grants require a 40% match and can support a wide variety of activities including best management practice implementation, technical assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects. The selected projects details including budget and implementation schedule are submitted to EPA for grant funding under Section 319(h). Each year's submission includes an "intended use" plan explaining how the funds requested serve the priorities for that year. Oregon's 319 nonpoint source implementation grant program process is described in detail in Section 5.1.

EPA requires DEQ to ensure a watershed-based plan or acceptable alternative plan has been completed in the geographical area where the project is being proposed, prior to funding on-the-ground projects with Section 319 dollars. A watershed-based plan is a plan, or collection of plans that satisfy elements (a) through (i) as presented in EPA's 319 Grant guidelines (USEPA, 2013) and further described in EPA's "Handbook for Developing Watershed Plans to Restore and Protect Our Waters" (USEPA, 2008). EPA's grant guidelines (USEPA, 2013) identify certain situations when an alternative plan is appropriate. Some of these situations include responding to a nonpoint source pollution emergency or urgent nonpoint public health risk; or when protecting unimpaired/high quality waters. Section 319 pass through grants prioritize implementation of watershed-based plans or alternative plans, which in Oregon include TMDLs, water quality management plans, TMDL implementation plans, and other plans that collectively contain the 9-Key Elements for an EPA watershed-based plan or alternative plan.

DEQ or EPA reviews watershed-based plans and alternative plans using a checklist approach and includes these areas as priorities in the 319 RFP if the collection of plans address the required elements as presented in EPA's 319 Grant guidelines (USEPA, 2013).

2.10.12 Riparian Lands Tax Incentive Program

The Riparian Lands Tax Incentive Program is a statewide program that offers a property tax incentive to property owners for improving or maintaining qualifying riparian lands which can include up to 100 feet from a waterway. Under this program, property owners file a Riparian Management Plan with the Oregon Department of Fish and Wildlife (ODFW) and County. The County reviews the specific property for eligibility with zoning requirements and ODFW reviews the plan to ensure habitat benefits are provided consistent with regulatory requirements and the Oregon Conservation Strategy. The property owner receives a complete property tax exemption for the qualifying riparian lands on their property, provided ODFW finds that measures will be implemented to protect, conserve, and restore the riparian land.

2.10.13 Wildlife Habitat Conservation and Management Program

The Wildlife Habitat Conservation and Management Program is a cooperative effort involving state and local governments and other partners to incentivize private

landowners to voluntarily conserve native wildlife habitat. The Oregon legislature created the management program to offer a property tax incentive to private landowners who want to provide wildlife habitat on their properties instead of, or in addition to, farming, growing timber or other land uses. The program is available to property owners in 15 Oregon counties that have specifically opted into the program. Under the program, a landowner, in conjunction with a cooperating agency develops a wildlife habitat conservation and management plan that specifies the conservation and management practices that will be conducted to protect and restore native habitat and native wildlife species. The land subject to an approved wildlife habitat conservation and management plan receives a wildlife habitat special assessment, where property taxes are assessed at the relatively low value that would apply if the land were being farmed or used for commercial forestry.

The objective of the program is to preserve, enhance or improve the composition, structure or function of habitat for native wildlife species. The program supports the efforts of Oregon's conservation strategy, whose primary focus is on improving and expanding voluntary conservation efforts. Tax incentive programs aimed at improving wildlife habitat are tools used to promote and support voluntary conservation actions taken by landowners.

2.10.14 Oregon Water Resources Department Funding Opportunities

The Oregon Water Resources Department has a number of funding opportunities that invest in water supply planning, studies, and projects that provide social, environmental, and economic benefits. The primary purpose of each fund is to address instream and out-of-stream water supply needs but they may invest in integrated solutions that address water quality as well.

- Place-based water planning empowers communities to work collaboratively, in partnership with the state, to understand their instream and out-of-stream water resources needs and identify integrated solutions;
- Feasibility study grants cover up to 50 percent of qualifying costs to evaluate the feasibility of developing water conservation, reuse, and storage projects that advance the department's mission and goals;
- Water project grants and loans fund instream and out-of-stream water supply projects that achieve economic, environmental, and social/cultural public benefits.

The Oregon legislature also established two new funding opportunities during the 2021 Oregon legislative session, which OWRD is working to stand up:

- Water Well Abandonment, Repair and Replacement Fund provides cost match to permanently abandon water wells and to repair or replace water wells used for household purposes, including wells impacted by groundwater contamination.
- Domestic Well Remediation Fund provides cost match to replace, repair or deepen domestic personal use wells that are affected by declining ground water levels in the Greater Harney Valley Greater Area of Concern.

2.11 Partnership Programs

Responsibility for managing water resources in Oregon is not completed entirely through individual programs within state agencies. Management of nonpoint sources also requires partnerships across federal, tribal, state, regional, and local government agencies, non-governmental organizations (including watershed groups and conservation districts), private sector groups and citizens. Partnerships are a key aspect of Oregon's nonpoint source program. This section identifies some of the state's partnerships, but certainly not all.

2.11.1 Tribal Nations

There are nine federally-recognized Tribal governments in Oregon:

- Burns Paiute Tribe
- Tribes of Coos, Lower Umpqua, and Siuslaw
- Confederated Tribes of the Grand Ronde Community of Oregon
- Confederated Tribes of Siletz Indians of Oregon
- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of Warm Springs Reservation of Oregon
- Coquille Indian Tribe
- Cow Creek Band of the Umpqua Tribe
- Klamath Tribes

DEQ consults and coordinates with the nine federally recognized tribal nations on air quality, water quality, and land quality issues. DEQ works with tribes on a government-to-government basis to understand and address tribal interests related to DEQ's environmental initiatives, policy and program development, and proposed legislation. DEQ partners with tribal nations to increase our collective ability to protect and enhance Oregon's environment and people's health.

DEQ's internal tribal relations activities are focused on improving consultation and communication between agency and tribal managers and staff, as well as providing training to DEQ employees on tribal government, sovereignty and issues of interest to tribal nations. In the nonpoint source program DEQ works with tribal nations on water quality standards development, water quality monitoring, development and implementation of TMDLs, and water quality improvement projects. During these processes, DEQ typically invites tribal governments to participate as members of advisory committees, solicits tribal feedback on draft reports or rules, coordinates on water quality monitoring, and invites tribes to participate in water quality meetings.

DEQ developed a Tribal Government-to-Government Relations Program in 1996 following Governor Kitzhaber's signing of Executive Order 96-30. In 2001, the legislature approved Senate Bill 770 which codified the executive order.

DEQ implements the directives of SB 770 through our tribal relations policy. The statement expresses DEQ's commitment to strong inter-governmental relations between the agency and the nine tribes. Measures include:

- Maintaining a tribal liaison function in the director's office

- Providing orientation, periodic training and educational opportunities to staff on tribal sovereignty and related issues
- Institutionalizing the consideration of tribal interests and issues in planning and decision-making activities
- Encouraging familiar day-to-day working relationships between agency staff and tribal environmental staff

DEQ's tribal liaison meets regularly with tribal nations and participates in tribal-state workgroups focused on natural resource management and protection of tribal cultural resources. The liaison also facilitates leadership-level meetings between tribal and agency officials, provides tribal relations training to DEQ employees and other groups, and advises DEQ managers and staff on opportunities for strengthening relationships with tribal nations.

EPA is an important participant in government-to-government relations between DEQ and the tribal governments. EPA has a federal trust responsibility to protect and restore the lands and environmental treaty resources (on-and-off reservation) of Indian tribes. Regulation of federal environmental laws on tribal lands is also the responsibility of EPA. However, tribes may seek direct delegation authority from EPA to carry out federal regulations on tribal lands. Tribes may also have their own tribal environmental regulations, stemming from their own inherent authority. DEQ participates in a partnership with EPA and tribal governments in carrying out their respective responsibilities for protecting and enhancing Oregon's environmental resources.

DEQ developed a Cultural Resources Protection Guidance, a resource for agency staff and the regulated community that describes federal and state cultural protection laws.

In addition to the government-to-government relations and regular communications with the nine federally recognized tribes in Oregon, DEQ also seeks input from federally recognized tribes that have ceded ancestral lands within Oregon or have strong interests in management of shared waterways such as the Columbia River or Snake River. DEQ works with non-federally recognized tribes within Oregon in the same manner as with other stakeholder interests.

2.11.2 Conservation Effectiveness Partnership

The partnership brings together technical staff from OWEB, DEQ, ODA, the USDA Natural Resources Conservation Service and ODFW to describe the effectiveness of cumulative conservation and restoration actions in achieving ecological outcomes through collaborative monitoring, evaluation, and reporting. DEQ, ODA, NRCS, and OWEB formed the partnership in 2010. In 2016, ODFW joined the partnership as a technical advisor to help the team consider questions about the connections between water quality and fish species and habitats. Through a Memorandum of Understanding, the agencies have committed to participate in partnership projects and evaluations. The goals of the partnership are to:

- Build an understanding of the extent of the investment in watershed improvement actions through the agencies' collective grant programs
- Develop a better understanding of how local organizations are utilizing the agencies' respective grant programs
- Evaluate the impacts of grant investments on water quality and watershed health

- Describe gaps in the treatment of watersheds
- Design tools and methods to report accomplishments to the public

The partnership identifies watersheds with significant agency investment and with specific water quality issues, and then engages with on-the-ground partners to identify specific questions about the effects of restoration investments on ecological outcomes. To date, CEP has completed focused work in six watersheds around the state. This work has resulted in a number of reports and facts sheets summarizing the partnership's findings. The reports and more information about the CEP can be found at https://www.oregon.gov/oweb/resources/Pages/CEP.aspx

2.11.3 Coordinated Streamside Management and Strategic Implementation Areas

Under the interagency, collaborative approach titled Coordinated Streamside Management, OWEB is collaborating with Oregon Department of Agriculture to provide grants to local partnerships in Strategic Implementation Areas for technical assistance that will design projects to restore riparian function, improve watershed health and increase water quality. SIAs are identified through ODA's Agriculture Water Quality Program as areas with water-quality concerns. SIAs result in an implementation plan outlining a set of coordinated restoration actions that seek to address such limiting factors as poor streamside vegetation and/or increased temperature, sediment, and nutrients. An important companion to the technical design work is watershed-scale effectiveness monitoring to track the cumulative effectiveness of coordinated projects that will be implemented. This monitoring is being led by an interagency partnership of OWEB, ODA, DEQ and ODFW.

2.11.4 National Water Quality Initiative

National Water Quality Initiative is a partnership among NRCS, state water quality agencies and the EPA to identify and address impaired water bodies and areas for source water protection through voluntary conservation with a focus on the agricultural sector. NRCS provides targeted funding for financial and technical assistance in small watersheds where farmers can use conservation practices to make a difference. Conservation systems include practices that promote soil health, reduce erosion and lessen nutrient runoff, such as filter strips, cover crops, reduced tillage and manure management. These practices not only benefit natural resources but also enhance agricultural productivity and profitability by improving soil health and optimizing the use of agricultural inputs.

From its inception in 2011, the initiative was focused on addressing impaired water bodies and there were just a handful of projects developed in Oregon. In FY19, NRCS expanded the scope of the initiative to include source water protection for both surface and ground water public water systems and also initiated a "readiness phase" where projects could apply for funding to complete watershed assessments to identify critical source areas needing further treatment related to agricultural land uses. Oregon conservation partners, including DEQ, responded by developing a set of screening criteria and assisting project sponsors (typically Soil and Water Conservation Districts and Watershed Councils) submit proposals. Currently, Oregon has eight HUC12 watersheds with impaired waterbodies in the implementation phase; 11 HUC12 watersheds with impaired waterbodies in the planning phase; and 11 source water

protection areas that are funded by NRCS to undergo the planning phase. During the planning phase, project partners will develop a detailed watershed assessment and an outreach strategy to address agricultural-related impacts to source water quality. These plans contain most of the nine key elements of the EPA watershed-based plan.

DEQ is able to provide much of the needed data for the proposals using Source Water Assessments and other Clean Water Act program data (nonpoint source program annual report, TMDL, 303(d), Agricultural water quality reports) reducing the workload for NRCS and local partners. DEQ and OHA use our existing contacts with public water system utilities to encourage their participation and connect drinking water communities to landowners/land managers.

Oregon state water quality agencies and other partners contribute additional resources for watershed planning, implementation and outreach. They also provide resources for monitoring efforts that help track water quality improvements over time.

2.11.5 Soil and Water Conservation Districts

Soil and Water Conservation Districts in Oregon are technical assistance and service providers that help landowners protect and restore soil and water. Conservation district formation is traced back to the “Dust Bowl” when President Franklin D. Roosevelt’s advocated, and Congress passed, the Soil Conservation Act, which established the Soil Conservation Service within the U.S. Department of Agriculture. In 1937 President Roosevelt advocated states pass legislation to allow for the formation of soil conservation districts.

Soil and Water Conservation Districts in Oregon are political subdivisions of state government but are not state agencies. Conservation districts are considered municipal corporations, a form of local government that is required to follow many of the same laws that govern state agencies (ORS 174.116).

There are 45 Soil and Water Conservation Districts in Oregon. Funding for most district operations come from a combination of grants provided by the legislature and administered through OWEB and ODA, county funds, federal funds, or through collection of taxes. Twelve districts have a voter approved permanent ad valorem property tax within the boundaries of the conservation district (ODA 2016).

As described in ORS 568.225, it is the Oregon legislature’s policy that Soil and Water Conservation Districts in Oregon work in partnership with landowners, land occupiers, natural resource organizations, natural resource users, local governments, and with state and federal agencies in projects to accelerate the conservation of natural resources of the state. The legislature also directed that Soil and Water Conservation Districts shall strive to prevent ground water contamination. Each district’s programs typically provide the following services:

- Implement agricultural rangeland, and forest water quality and water quantity projects
- Develop conservation plans in partnership with landowners
- Enhance fish and wildlife habitat
- Promote public participation and knowledge of conservation practices

Under Oregon's Agriculture Water Quality Management Act (Section 2.3) the legislature specified that Oregon Soil and Water Conservation Districts be involved in area plan development and implementation as local management agencies to the fullest extent practical (ORS 569.906).

2.11.6 Watershed Councils

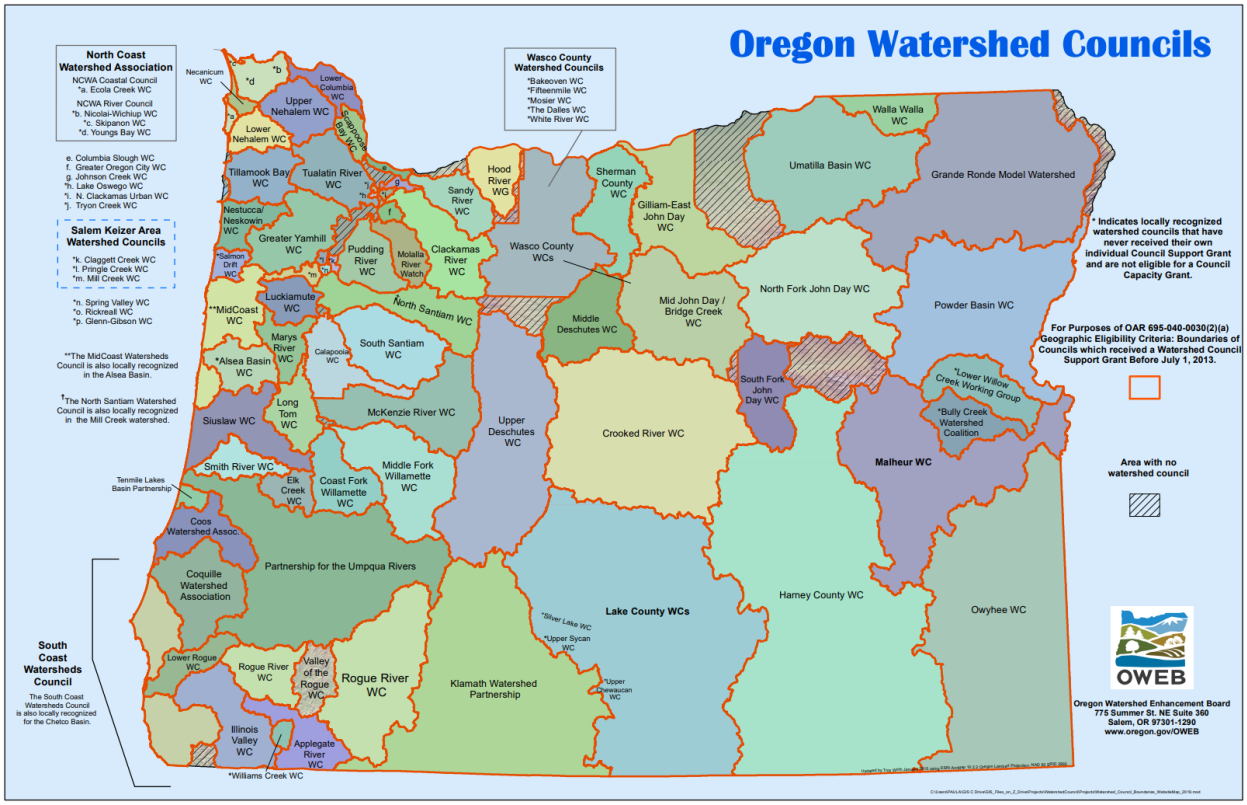
A Watershed Council is a local organization, designated by a local government group convened by a county governing body, to address the goal of sustaining natural resource and watershed protection, restoration and enhancement within a watershed (ORS 541.890(14)).

In 1995, the legislature unanimously passed House Bill 3441 which formally encourages local government groups to form watershed councils. The law establishes guidelines for council formation and established requirements in order to be recognized by the state and receive state assistance. To be recognized and receive state assistance councils must represent a balance of interested and affected persons within the watershed and assure a high level of citizen involvement in the development and implementation of a watershed action program (ORS 541.910).

Oregon has about 90 recognized councils (

Figure 1). Typically, about 60 receive capacity-funding support from the OWEB (see Section 2.10.7). Watershed Councils work in a variety different landscapes, including small urban watersheds or larger watersheds in rural areas. Some councils are small with mostly volunteer staff while others can be larger with paid staff. DEQ, ODA, ODFW, and OWEB work closely with Watershed Councils to conduct a variety of important activities including watershed assessments, watershed planning, monitoring, outreach and community events, and watershed restoration or enhancement projects.

Figure 1. Map of Oregon Watershed Councils (Source: OWEB).



2.11.7 Western Oregon Stream Restoration Program

The Western Oregon Stream Restoration Program is administered by the Oregon Department of Fish and Wildlife. It provides direct technical support to Watershed Councils and private landowners in western Oregon to implement Oregon Plan measures directing the restoration and enhancement of salmonid habitats. This includes projects to increase instream habitat complexity by adding large wood or boulders, enhancing riparian areas by protection or planting, and correcting fish passage problems.

2.11.8 DEQ Memorandum of Understandings and Memorandum of Agreements

DEQ has memorandum of understandings or memorandum of agreements with many partners that identify the specific roles and responsibilities to either develop and/or implement water quality programs to jointly meet water quality standards or TMDL load allocations.

2.11.8.1 DEQ/ODA Memorandum of Understanding

The MOU between Oregon Department of Agriculture and DEQ was originally signed in 2012 and extended in 2018. Another review and revision is anticipated in 2022-2023. The MOU is a five-year agreement intended to assist DEQ and ODA in collaborative efforts to meet their legal responsibilities related to agricultural nonpoint source pollution, and to help ensure, to the maximum extent practicable, that agricultural activities in

compliance with area rules do not cause or contribute to exceedance of water quality standards and that with implementation of area plans TMDL allocations are achieved in agricultural areas.

The following highlight some of the objectives that each agency will be responsible for through this MOU.

- DEQ will advise ODA staff and agricultural stakeholders of the water quality standards revision process and invite them to attend and participate in advisory committee meetings.
- When revising Oregon's Nonpoint Source Program Plan, DEQ will seek input from ODA on elements that relate to agricultural land uses.
- DEQ will request representation from ODA and the Agricultural Water Quality Management Area (management area) Local Advisory Committee(s) (LAC) for the TMDL Advisory Committee. DEQ will advise the relevant ODA staff and Local Management Agencies (LMA) of TMDL Advisory Committee meetings and will encourage them to attend and participate in these meetings.
- DEQ will work with ODA to ensure that appropriate load allocations for agricultural nonpoint source sectors are established for TMDLs. If agencies determine that TMDL agricultural load allocations are not appropriately set, then DEQ will work with ODA to re-evaluate the allocation attributed to agriculture using the existing TMDL procedures.
- DEQ will participate in the biennial review process by reviewing available data for water quality trends and whether waterbodies are achieving water quality standards and meeting TMDL agricultural load allocations. DEQ will also review the area plan and work with ODA to recommend any changes or additions necessary to achieve water quality standards and meet TMDL agricultural load allocations. Additionally, DEQ will evaluate and provide comment to ODA on the suitability of landscape conditions to achieve TMDL agricultural load allocations.

ODA’s role will

- Evaluate area plan and rule implementation effectiveness, in collaboration with DEQ by determining the percentage of lands achieving compliance with the area rules and whether the target percentages of lands meeting desired land conditions, as outlined in the goals and objectives in the area plan, are being met.
- Notify DEQ regional and headquarters staff and request review and comment on the area plan. ODA will invite DEQ regional staff to participate in each of the LAC biennial review meetings.
- Collaborate with the LAC to evaluate the area plan, determine whether the area plan and rules need to be modified to meet statut01y and rule requirements, and propose modifications for discussion with DEQ.
- Be ultimately responsible to revise the area plan, area rules, and/or implementation as needed to achieve the goals of the area plan and water quality standards within the time frames established under TMDLs.

Both agencies will

- Review and evaluate existing information
- Coordinate monitoring and reporting efforts to evaluate land conditions and water quality trends, and whether agricultural load allocations are being addressed.

- Review and evaluate available monitoring and implementation information and provide the results of this evaluation to the LAC.
- Commit to work together with the intent to resolve issues at the lowest levels in a timely manner. In the event that issues cannot be resolved at the lowest levels, staff and managers will raise the issue to the director level. If DEQ believes that an area plan and associated rules are not adequate to achieve and maintain TMDL agricultural load allocations, DEQ will provide ODA with comments on what would be sufficient to meet TMDL agricultural load allocations. ODA will modify the Area Plan and Rules and implementation activities as needed to address the comments. If a resolution cannot be agreed upon, DEQ will request the Environmental Quality Commission (EQC) to petition ODA for a review of part or all of the area plan and rules.

2.11.8.2 Clean Water State Revolving Loan Fund Operating Agreement

The 2021 Oregon Clean Water State Revolving Loan Fund Operating Agreement is an agreement between DEQ and EPA. DEQ administers the program in accordance with the procedures established in the Agreement and in conformance with applicable state and federal regulations. DEQ and EPA maintain a high level of cooperation and coordination to administer and guide this program.

2.11.8.3 2006 Forest Lands Conversion Memorandum of Agreement

The 2006 forest land conversion MOA is an agreement among the Oregon Department of Forestry, Oregon Department of Agriculture, Oregon Division of State Lands, Oregon Department of Land Conservation and Development, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, and DEQ. The agencies have common interests and responsibilities in protecting waters of the state and other natural resources during the conversion of forestland to non-forest uses.

Mutual Agreements under the MOA including the following:

- State agencies signatory to this MOA are committed to collaborate on jurisdiction and enforcement issues related to forestland conversions.
- State agencies in this MOA retain their independent enforcement authority over any violations under their jurisdiction.
- The Forest Practices' Act water protection rules are the standard to protect water quality from nonpoint sources on non-federal forestland. The landowner/operator is responsible for following the rules of the FPA until forest operations have been ceased. ODF will take enforcement action if the FPA is violated.
- When a landowner/operator proposes to convert forestland to another use, ODF may waive, exempt, or modify FPA requirements and require a plan for alternate practice containing the specific modifications relevant to the operation proposed.
- ODF will provide DEQ copies of all notifications proposing conversions to another land use unless less than one acre. ODF will also provide copies to other relevant regulatory agencies.
- A plan for an alternate practice must address potential water quality or natural resource impacts of the proposed practices. All standards for the alternative practice must be met by the plan before it is approved by ODF.

- All state agencies will provide timely written approval and/or response to a proposed forestland conversion.
- DLCD will assist ODF upon request to determine whether a conversion is authorized under land use regulations and that permits will be obtained.
- ODA will determine if the conversion will include farm use.
- Converted land must show progress towards the future use within twelve months of completion of the forest operation.
- Once conversion has begun, the landowner/operator is responsible for meeting state water quality standards and/or the resource protection rules of the new land use.
- The land use conversion must be completed and continuously maintained within 24 months of the completion of forest operation. If the conversion is not maintained, ODF may reassert jurisdiction and administer all appropriate rules under the FPA.
- ODF will inform the appropriate state agencies if an undocumented conversion is identified and collaborate on the necessary steps to be taken.
- Enforcement actions among interested agencies and local governments will be coordinated to ensure all relevant resource protection requirements are addressed.
- DEQ, ODF, ODA, DSL, ODFW, OPRD, and DLCD agree to work together to conduct training sessions for appropriate staff and local entities to explain the forestland conversion process and must include representation from all agencies signatory to this agreement. Training will be offered by ODF for cities and counties interested in assuming the responsibilities of regulating forest operations within urban growth boundaries. Outreach will occur with key related industries to forest conversion.

Issue Resolution

The local offices of each agency will evaluate the issue and work together on a resolution in a timely manner. In the case of a violation, more than one agency and/or local government may take enforcement actions. These actions will be coordinated between those entities taking action. When situations require immediate action, the responsible agencies will work together to determine what best management practices and/or enforcement actions should be used to correct the situation in a timely manner. If a resolution cannot be agreed upon, the local offices will jointly develop a briefing document and will elevate the issue to each agency's headquarters office. DEQ, ODF, ODA, DSL, ODFW, OPRD and DLCD may request assistance from other agencies or entities at any step in the dispute resolution process as deemed necessary.

This MOA and the forestland conversion process will be evaluated triennially after 2008 to determine whether revisions are necessary.

2.11.8.4 DEQ/ODF — 2021 Memorandum of Understanding

The current MOU between DEQ and ODF was signed in December of 2021 replacing the 1998 MOU. The purpose of the MOU is to describe how DEQ and ODF will work together to carry out each agency's responsibilities and requirements in protecting clean water on non-federal forestlands. The MOU specifies how DEQ and ODF will interact and use forestry-specific data and information during development and implementation of TMDLs as well as forest practices sufficiency determinations, Section 319 nonpoint source management program plan elements, water quality standards revision priorities and Integrated Report development. The MOU includes

commitments to collaborate on forestry-specific plans; report on TMDL implementation; periodic assessment and reporting to the agencies' governing bodies on MOU progress; a process for updating the MOU and a dispute resolution process.

2.11.8.5 DEQ/USFS and DEQ/BLM – Memorandum of Understanding

USFS and BLM each have an MOU with DEQ. In 2019, DEQ and the U.S. Department of Agriculture, Forest Service revised the MOU between the two agencies. The agreement is effective through September 2023 and will expire unless extended. In 2017, DEQ and the U.S. Department of the Interior Bureau of Land Management also revised the MOU between the two agencies. The DEQ/BLM MOU is effective through January 2022, and will also expire unless extended.

These MOUs document USFS, BLM, and DEQ strategies for meeting state and federal water quality rules and regulations and managing and controlling point and nonpoint source water pollution from USFS and BLM managed lands in the Oregon. These MOUs set out the procedures for the USFS, BLM and DEQ to cooperatively implement state and federal water quality rules and regulations. The physical, chemical and biological conditions of "Waters of the State" that support beneficial uses (defined in Oregon Revised Statute (ORS), Chapter 468B — Water Quality and Oregon Administrative Rules (OAR), Division 41) will be protected, restored, and maintained by working in a proactive, collaborative, and adaptive manner through these MOUs.

Summary of DEQ Obligations to USFS and BLM under these MOUs:

- Recognize USFS and BLM as a designated management agency on lands under USFS jurisdiction.
- Develop and revise water quality standards, assess water quality and impairments, issue permits, assess compliance, enforce water quality requirements, implement the 319 grants program, and administer the State Revolving Fund low interest loan(s) program.
- Coordinate with USFS and BLM to collect, submit, and interpret data.
- Coordinate with USFS and BLM to develop TMDLs that include USFS and BLM administered lands.
- On request, provide training and technical support to the USFS and BLM staff on monitoring protocols.
- Notify appropriate USFS or BLM staff when emergencies occur that affect USFS and BLM lands and coordinate on appropriate actions.
- Provide technical assistance as requested.
- Review the USFS and BLM best management practices and associated monitoring protocols.
- Formally request USFS and BLM review and comment on significant draft water quality policies or rule making documents with potential impact to USFS and BLM.
- Keep current records of DEQ permits issued to USFS and BLM.
- Transmit a letter acknowledging receipt of a Water Quality Restoration Plan to the USFS and BLM within 60 days of receipt with recommendations for suggested revisions for approval or acceptance.
- Provide recommendations for revision to existing Water Quality Restoration Plans in a Water Quality Management Plan when issued
- Claim authority to take enforcement actions on compliance with the TMDL rule requirements for submittal and implementation of a Water Quality Restoration Plan.

- Participate and coordinate with USFS and BLM Water Quality Program Leads on required reporting.

Summary of USFS and BLM Obligations to DEQ under these MOUs

- Manage USFS and BLM lands and water-quality-limited water bodies to protect, restore, and maintain water quality to Federal and State water quality standards.
- Specify and implement programmatic and site-specific best management practices to meet regional, state, and local requirements and provide to DEQ for review.
- Conduct best management practice implementation and effectiveness monitoring required in Forest Plans or Resource Management Plans and projects and review and revise as necessary.
- Provide data to assist DEQ in TMDL development on USFS and BLM lands.
- Provide regulatory compliance data, listing and delisting data, and TMDL support data that meets DEQ quality assurance and quality control requirements.
- Comply with the TMDL Rule in preparation or revision of TMDL implementation plans and submit to DEQ for review and approval.
- Follow the USFS and BLM protocol for addressing CWA 303(d) listed waters in watersheds where there is no TMDL scheduled.
- Coordinate in developing restoration plans for USFS and BLM lands and revise and adapt them as needed.
- Prepare restoration plans prior to, concurrent with, or following TMDL development but may be required to revise them if completed before final TMDL approval or issuance.
- Conduct management activities on USFS and BLM lands consistent with restoration plans and provide updates and reports on restoration progress.
- Incorporate restoration goals, objectives, and provisions into activity level planning.
- Take appropriate first response or corrective action to remedy emergencies on USFS and BLM lands in accordance with state and federal rules and regulations.
- Include national or local best management practices as terms for leases and special use permits to third parties and monitor implementation and effectiveness.
- Support the Oregon Coastal Nonpoint Source Program through incorporation of nonpoint source management measures where applicable.
- USFS and BLM will comply with all applicable requirements of the Safe Drinking Water Act and state onsite sewage disposal programs.
- Coordinate regarding groundwater resource management and drinking water protection
- Review any significant draft DEQ water quality policy or rule making.
- The USFS and BLM will participate with the DEQ on required reporting, including water quality program reviews.

2.12 Best Management Practices

33 USC § 1329(b)(2)(A) requires a nonpoint source management program identify the best management practices and measures which will be undertaken to reduce pollutant loadings.

In Oregon, best management practices are discussed using various terms. The term used depends on the specific state or federal program. In addition to best management

practices, these other terms include management strategies, management measures, nonpoint source control, conservation practices, practices, activities, and treatments.

The best management practices described in the resources or rules listed below will be relied upon to reduce pollutant loading from nonpoint sources. This list is not exhaustive and not intended to be the only set of strategies the state uses to control and prevent nonpoint source pollution.

- Natural Resource Conservation Services Field Office Technical Guide. The guide is where a variety of scientific references and practice standards are summarized. These sets of practices are typically utilized to reduce nonpoint pollution from agricultural and silviculture although they are not exclusive to those categories. https://efotg.sc.egov.usda.gov.
- Activities and treatments described in the Oregon Aquatic Habitat Restoration and Enhancement Guide (OPSW, 1999). Activities and treatments have been further refined by OWEB and used for reporting to the OWRI database (Section 2.10.7). Treatments are organized by activity and activity types. The full list is included in Appendix B.
- Practices described in Oregon's Forest Practices Act including recent rule revisions required by Senate Bill 1501 incorporating practices described in the Private Forest Accord Report (Stevens et al 2022), State Forest Management Plans, and State Forest Management Implementation Plans. These practices reduce nonpoint pollution from silviculture activities on private (non-federal) lands and state-managed forests.
- Northwest Forest Plan, PACFISH, and INFISH management strategies (USFS and BLM 1994; USFS and BLM 1995; and USFS 1995). These management strategies are used on federal lands managed by the USFS and BLM. The strategies are primarily focused on reducing nonpoint pollution from silviculture, livestock grazing (agriculture), transportation, habitat modification, and hydromodification. The National Best Management Practices for Water Quality Management on National Forest System Lands (USDA, 2012) provides technical guidance for the USFS National Best Management Practices Program.
- EPA's national menu of best management practices and management measures for multiple categories of nonpoint source pollution including stormwater, urbanization, habitat modification, hydromodification, transportation, and marinas and boating (USEPA 1993; USEPA 2001; USEPA 2005; USEPA 2007).
- Oregon DEQ's best management practices for Oregon Marinas (DEQ, 2017a) and shipyards (DEQ, 2017b).
- Oregon Department of Transportation's best management practices for sediment control (ODOT, 2019a); design, construction, and maintenance of roads (ODOT, 2020a); management of road maintenance materials (ODOT, 2019b); and design and planning for stormwater (ODOT 2014; ODOT 2020b). These best management practices are focused on addressing nonpoint pollution from transportation, transportation related habitat modification, and stormwater.
- The Low Impact Development Guide for Western Oregon (Cahill et al 2016) detailing practices that address nonpoint pollution from stormwater and urbanization.
- Management strategies described in Total Maximum Daily Load Water Quality Management Plans or TMDL implementation plans. These strategies address multiple categories of nonpoint pollution.

- Groundwater Management Action Plans. The practices described in these plans address nonpoint pollution to groundwater from agriculture and other categories.

33 USC § 1329(b)(2)(C) requires the state's nonpoint source program have a schedule containing annual milestones for implementation of best management practices.

The state nonpoint source program funds and schedules best management practices for implementation through grant funding programs administered by the Oregon Watershed Enhancement Board (Section 2.10.7); Natural Resource Conservation Service (Section 2.10.1); and a variety other funding programs described in Section 2.10 including federal 319 nonpoint source funds administered by DEQ (Section 2.10.11).

For grant programs administered by the OWEB and DEQ, once projects are selected a grant agreement is developed between the grant recipient and the state. The grant agreements include a schedule for implementation, annual milestones, project requirements, the budget, reporting requirements, and other details. The grant agreements developed by OWEB can be publicly accessed in the Oregon Grant Management System at https://apps.wrd.state.or.us/apps/oweb/fiscal/default.aspx. DEQ's 319 grant agreements can be publicly accessed using EPA's Grants Reporting and Tracking System (GRTS) at https://www.epa.gov/nps/grants-reporting-and-tracking-system-grts. DEQ also submits the annual Section 319 grant schedule and budgets to EPA annually in the intended use plan. This process is described in detail in Section 5.1.

As described in Section 2.1.4, TMDL water quality management plans or TMDL implementation plans also contain timelines for implementation of management strategies. These timelines are one of the methods in which Oregon's nonpoint source program identifies and schedules best management practices and other measures which will be undertaken to reduce nonpoint pollutant loadings.

Chapter 3 of this plan includes several statewide actions and annual milestones for implementation and reporting of identified best management practices that will be undertaken and implemented in Oregon. This plan has set an overall target for riparian restoration in TMDL watersheds under action TMDL-06 described in Section 3.3. The drinking water program similarly has set a statewide target of substantial implementation of source water protection actions under DWP-09 in Section 3.4. A summary of completed best management practices will be compiled from OWEB, NRCS, DEQ, and other sources and reported each year in the nonpoint source annual report under actions 319-2, CWSRF-1, and NPS-3. These actions are described in Sections 3.6, 3.7, and 3.13 respectively The state also provides a web tool to explore and track the outputs of various projects reported to OWEB's watershed restoration inventory. That tool is located at https://tools.oregonexplorer.info/OE_HtmlViewer/Index.html?viewer=owrt.

3. Program Goals, Objectives, Actions, and Milestones

The long-term goal of Oregon's Nonpoint Source Management Program is:

> *For all waterbodies and groundwater within Oregon, to attain and maintain water quality standards and designated beneficial uses in partnership with communities using a watershed-based adaptive management program.*

This is accomplished through the protection and improvement of Oregon's water quality, ensuring that nonpoint sources of pollution do not contribute to impairment of Oregon's beneficial uses and water quality standards.

To achieve this long-term goal, Oregon must be strategic, set priorities, and administer programs that have clear objectives and specific actions. Oregon's goal cannot be achieved overnight and has proven to be a multigenerational task. Actions in this plan are crafted to be completed over the next five years. They define the incremental steps each program will take towards meeting program objectives and over time attain the long-term goal. Actions are specific, measurable, achievable, realistic, and time-bound (SMART). SMART actions provide a way to evaluate and measure success allowing the public, State agencies, and EPA to determine if Oregon is making progress implementing the nonpoint source management program. Each set of objectives, actions, and milestones are organized by program or program area. The reporting metrics will be included in Oregon's Nonpoint Source Pollution Program Annual Report described in Section 5.3.1.

3.1 Water Quality Standards

Program Goal: Protection of designated beneficial uses in waters of the State through the establishment of water quality standards and rules.

Objective 1: Implement triennial review work plan priorities to update water quality standards.

Table 4. Water quality standards program actions, milestones, and reporting metrics that support objective 1.

Actions	Milestones	Reporting Metrics
WQS-01. Update the Aquatic Life Use Designations	**WQS-01-M1**. Updated Aquatic Life Use designations by December 31, 2022.	**WQS-01-R1**. Date the use designations were adopted by EQC. Reported in 2022 annual report. **WQS-01-R2**. Summary description of the updates. Reported in 2022 annual report.
WQS-02. Review and revise aquatic life criteria for toxic pollutants.	**WQS-02-M1**. Updated Aquatic Life Criteria by December 31, 2023.	**WQS-02-R1**. Date the criteria updates were adopted by EQC. Reported in 2023 annual report. **WQS-02-R2**. Summary description of the updates. Reported in 2023 annual report.
WQS-03. Develop procedures to apply narrative criteria for toxic pollutants, nuisance algal growth, and biocriteria.	**WQS-03-M1**. Procedures to apply the narrative toxics criteria, nuisance algal growth, and biocriteria are completed by June 30, 2024.	**WQS-03-R1**. Date procedures were completed. Reported in 2024 annual report. **WQS-03-R2**. Summary description of procedures. Reported in 2024 annual report.
WQS-04. Conduct a triennial review to identify and prioritize the water quality standards projects to be initiated or completed in 2024 through 2028.	**WQS-04-M1**. Completed Triennial Review and workplan by December. 31, 2024.	**WQS-04-R1.** Date Triennial Review completed. Reported in 2024 annual report. **WQS-04-R2**. Summary description of Triennial Review workplan recommendations with anticipated timeline. Reported in 2024 annual report.

3.2Water Quality Assessment

Program Goal: Assessment of Oregon's surface waters.

Objective 2: On-time development and submittal of Oregon's biennial 305(b)/303(d) Integrated Report to EPA

Table 5. Assessment program actions, milestones, and reporting metrics that support objective 2.

Actions	Milestones	Reporting Metrics
WQA-01. Prepare and submit the 2022 Integrated Report to EPA.	**WQA-01-M1.** Final 2022 Integrated Report submitted to EPA by the second quarter of 2022.	**WQA-01-R1.** Date 2022 Integrated Report is submitted to EPA for approval. Reported in 2022 annual report.
WQA-02. Complete a call for data for the 2024 Integrated Report.	**WQA-02-M1.** Completed call for data by the end of second quarter of 2023.	**WQA-02-R1.** The date the call for data closed. Reported in 2023 annual report.
WQA-03. Prepare the 2024 Integrated Report Assessment Methodology.	**WQA-03-M1.** Release the draft 2024 Integrated Report Assessment Methodology for public comment by the end of second quarter of 2023.	**WQA-03-R1**. The date the draft 2024 Integrated Report Assessment Methodology is released for public comment. Reported in 2023 annual report.
WQA-04. Prepare and submit the 2024 Integrated Report to EPA.	**WQA-05-M1**. The 2024 Integrated Report submitted to EPA by the second quarter of 2024.	**WQA-04-R1.** Date 2024 Integrated Report is submitted to EPA for approval. Reported in 2024 annual report.
WQA-05. Complete a call for data for the 2026 Integrated Report.	**WQA-05-M1.** Completed call for data by the end of second quarter of 2025.	**WQA-05-R1.** The date the call for data closed. Reported in 2025 annual report.
WQA-06. Prepare the 2026 Integrated Report Assessment Methodology.	**WQA-06-M1**. Release the draft 2026 Integrated Report Assessment Methodology for public comment by the end of second quarter of 2025.	**WQA-06-R1**. The date the draft 2026 Integrated Report Assessment Methodology is released for public comment. Reported in 2025 annual report.
WQA-07. Prepare and submit the 2026 Integrated Report to EPA.	**WQA-07-M1**. The 2026 Integrated Report submitted to EPA by the second quarter of 2026.	**WQA-07-R1.** Date 2026 Integrated Report is submitted to EPA for approval. Reported in 2026 annual report.

3.3 Total Maximum Daily Load Program

Program Goal: Attain and maintain water quality standards by controlling pollution from point and nonpoint sources.

Objective 3: DEQ develops Total Maximum Daily Loads and Water Quality Management Plans for priority impaired waters.

Table 6. Total Maximum Daily Load program actions, milestones, and reporting metrics that support objective 3.

Actions	Milestones	Reporting Metrics
TMDL-01. DEQ issues high priority Total Maximum Daily Loads to EPA.	**TMDL-01-M1.** DEQ has issued to EPA TMDLs addressing a minimum of 426 water quality limited segments by December 31, 2024.	**TMDL-01-R1.** Summary of TMDLs submitted to EPA during the reporting period including name of the TMDLs, water quality limited parameter/s addressed, and associated pollutant/s. Reported annually. **TMDL-01-R2.** Number of water quality limited segments addressed by TMDLs submitted to EPA during the reporting period. Reported annually. **TMDL-01-R3.** Cumulative number of water quality limited segments addressed by TMDLs submitted to EPA between January 1, 2022 and December 31, 2026. Reported annually.
TMDL-02. DEQ issues a WQMPs for EPA's temperature Total Maximum Daily Load (TMDL) on the Columbia and Lower Snake Rivers.	**TMDL-02-M1.** DEQ has issued the Columbia River WQMP addressing 27 temperature water quality limited segments by December 31, 2023.	**TMDL-02-R1.** Date the Columbia River WQMP was issued by DEQ. Reported in 2023 annual report.

Objective 4: DMA or responsible persons develop TMDL implementation plans.

Table 7. Total Maximum Daily Load program actions, milestones, and reporting metrics that support objective 4.

Actions	Milestones	Reporting Metrics
TMDL-03. DEQ receives, reviews, and takes action on TMDL implementation plans.	**TMDL-03-M1.** DEQ takes action on 100% of TMDL implementation plans within 12 months of receipt.	**TMDL-03-R1.** Percent of TMDL implementation plans submitted during the previous calendar year that DEQ has taken action on. Reported annually. **TMDL-03-R2.** Number of DMAs or responsible persons required to submit a new or revised TMDL implementation plan. Reported annually. **TMDL-03-R3.** Number of DMAs or responsible persons that have submitted TMDL implementation plans by January 1 of the previous calendar year. Reported annually. **TMDL-03-R4.** Number of TMDL implementation plans that DEQ has taken action on during the previous calendar year. Reported annually.

Objective 5: DMA or responsible persons are implementing their TMDL implementation plan.

Table 8. Total Maximum Daily Load program actions, milestones, and reporting metrics that support objective 5.

Actions	Milestones	Reporting Metrics
TMDL-04. DEQ has reviewed for sufficiency, commented on, or taken other appropriate action on submitted TMDL implementation plan annual reports.	**TMDL-04-M1.** DEQ has taken action on 100% of implementation plan annual reports that were submitted to DEQ during the previous calendar year.	**TMDL-04-R1.** Percent of TMDL implementation plan annual reports submitted during the previous calendar year that DEQ has taken action on. Reported annually. **TMDL-04-R2.** Number of DMAs or responsible persons that are required to submit a TMDL implementation plan annual report to DEQ. Reported annually. **TMDL-04-R3.** Number of annual reports submitted to DEQ before January 1 of the previous calendar year. Reported annually. **TMDL-04-R4.** Number of annual reports submitted to DEQ before January 1 of the previous calendar year that DEQ has taken action on. Reported annually,
TMDL-05. DEQ formally notifies each DMA or responsible persons of the TMDL and WQMP requirements and follows up with appropriate action (e.g. technical assistance, warning letter, or enforcement notice).	**TMDL-05-M1.** DEQ has notified and implemented any appropriate actions to 100% of DMAs or responsible persons who have not submitted or have failed to develop and submit TMDL implementation plans or annual reports as required under an approved TMDL WQMP from the previous calendar year.	**TMDL-05-R1.** Percent of DMAs or responsible persons that DEQ has notified or implemented any appropriate actions. Reported annually. **TMDL-05-R2.** Number of DMAs or responsible persons that have been notified via letter or email of the TMDL and WQMP requirements. Reported annually. **TMDL-05-R3.** Number of DMAs or responsible persons that DEQ has implemented appropriate actions using the following categories: Technical assistance provided, warning letter sent, enforcement action taken. Reported annually.

Objective 6: Management strategies are being implemented to reduce and control nonpoint sources where TMDL or other watershed-based plans have been developed.

Table 9. Total Maximum Daily Load program actions, milestones, and reporting metrics that support objective 6.

Actions	Milestones	Reporting Metrics
TMDL-06. Riparian areas are restored or enhanced	**TMDL-06-M1.** Over a five-year period 200 riparian stream miles in watersheds addressed by TMDLs for temperature or other water quality limited parameters requiring solar radiation load reductions have riparian tree planting projects completed.	**TMDL-06-R1.** The total length of riparian stream miles and number of acres with completed tree planting restoration projects in HUC8 subbasins with approved TMDLs for the most recent annual period when data is available. Reported annually. **TMDL-06-R2.** Cumulative number of riparian stream miles and number of acres with completed tree planting restoration projects in HUC8 subbasins with approved TMDLs between January 1, 2022 and December 31, 2026. Reported annually.
TMDL-07. Other appropriate management strategies are implemented to reduce pollutant loading.	**TMDL-07-M1.** Annually, summarize and report the quantity management strategies that have been implemented within watersheds where TMDLs have been developed.	**TMDL-07-R1.** The annual quantity of management strategies implemented for each HUC8 subbasins with approved TMDLs. Reported annually.

Objective 7: DEQ and partners evaluate progress implementing TMDLs through landscape and water quality response monitoring.

Table 10. Total Maximum Daily Load program actions, milestones, and reporting metrics that support objective 7.

Actions	Milestones	Reporting Metrics
TMDL-08. Develop TMDL monitoring plans.	**TMDL-08-M1.** A minimum of five TMDL monitoring plans developed by December 31, 2026.	**TMDL-08-R1.** Number and identification of TMDL monitoring plans approved by HSPIG and the Governance Committee in the previous calendar year. Reported annually.
TMDL-09. Implementation of TMDL monitoring plans.	**TMDL-09-M1.** A minimum of five TMDL monitoring plans implemented by December 31, 2026.	**TMDL-09-R1.** Name and number of TMDL monitoring plans implemented. Reported annually.

Objective 8: DEQ understands, summarizes, and reports on the status of TMDL implementation.

Table 11. Total Maximum Daily Load program actions, milestones, and reporting metrics that support objective 8.

Actions	Milestones	Reporting Metrics
TMDL-10. DEQ will complete five-year TMDL implementation reports summarizing TMDL implementation actions, if those actions are meeting WQMP or TMDL implementation plan requirements and milestones, other relevant information, and recommendations for next steps.	**TMDL-10-M1.** DEQ completes a five-year TMDL implementation report at least once between January 1, 2022 and December 31, 2026 for the following TMDLs: Bear Creek Watershed Rogue River Basin Walla Walla Subbasin	**TMDL-10-R1.** Identification of five-year TMDL implementation review status. Reported annually. **TMDL-10-R2.** Narrative overview of report findings. Reported annually.

3.4Drinking Water Protection

Program Goal: Reduce risk of contamination, minimize cost of treatment, and reduce risk of local health impacts from contaminants that cannot be removed through standard treatment by reducing pollution from point and nonpoint sources into public water supply sources.

Objective 9: DEQ provides information to public water systems and their communities on sources of drinking water and identifies potential point and non-point source risks within the source area.

Table 12 Drinking water protection program actions, milestones, and reporting metrics that support objective 9.

Action	Milestone	Reporting Metrics
DWP-01. DEQ will assist Oregon Health Authority in completing "Updated Source Water Assessments" for Community and Non-transient Non-community water systems using groundwater.	**DWP-01-M1.** Provide OHA maps and potential contaminant source inventory data input for the remaining 100 Updated Source Water Assessments for Community and Non-transient Non-community water systems using groundwater bringing the total to 500 completed in Oregon by Dec. 31, 2026.	**DWP-01-R1.** Number of groundwater systems where Updated Source Water Assessment maps and data are drafted for OHA for during the reporting period. Reported annually. **DWP-01-R2.** Total number of completed Updated Source Water Assessments in Oregon. Reported annually.
DWP-02. DEQ will complete Updated Source Water Assessments for any new Community and Non-transient Non-community surface water systems. (Note that USWAs for all 168 existing Oregon surface water systems were complete as of August 2019).	**DWP-02-M1.** Complete updated reports for 100% of Community and Non-transient Non-community surface water systems by December 31, 2026.	**DWP-02-R1.** Number of completed Updated Source Water Assessments for surface water systems during the reporting period. Reported annually. **DWP-02-R2.** Total number of surface water systems requiring an Updated Source Water Assessment. Reported annually.
DWP-03. DEQ will provide additional information and updates to both groundwater and surface water Public Water Systems upon request.	**DWP-03-M1.** Ground water and surface water Public Water Systems requests completed.	**DWP-03-R1.** Number of public water systems provided additional assessment information. Reported annually.

Objective 10: DEQ provides readily accessible information to public water systems and their communities on the source water assessments and actions they can take to protect drinking water.

Table 13. Drinking water protection program actions, milestones, and reporting metrics that support objective 10.

Actions	Milestones	Reporting Metrics
DWP-04. DEQ will maintain DWP website that provides public access to multiple data sources on drinking water source area assessments, maps and data, information on source protection, and available funding.	**DWP-04-M1.** Completion of annual website review.	**DWP-04-R1.** Narrative description of updated website content. Reported annually.
DWP-05. DEQ will review and update the Groundwater and Surface Water Resource Guides to identify additional measures to control nonpoint pollution, focusing on those measures that will be most effective in supporting drinking water as a beneficial use.	**DWP-05-M1.** Completion of Resource Guide update every two years by June 30 2022, 2024, and 2026.	**DWP-05-R1.** Date Resource Guide was updated. Reported in 2022, 2024, and 2026 annual reports. **DWP-05-R2.** Narrative description of updates completed. Reported in 2022, 2024, and 2026 annual reports.
DWP-06. In partnership with lead funders (OHA, DWPP) solicit and select DWSRF and DWPP grant projects that support priorities DEQ will promote the use of the grants and loans for addressing nonpoint sources of pollution within drinking water areas. Grant and loan programs include the Drinking Water Source Protection Fund (DWSRF set-asides); Drinking Water Providers Partnership (with USFS, BLM, EPA, and NGOs); NPS 319 grant funding where there is a drinking water nexus and a relevant watershed-based plan or TMDL; NRCS National Water Quality Initiative Source Water Protection projects; and Clean Water State Revolving Fund (CWSRF).	**DWP-06-M1.** Annual participation in project development and selection for DW SPF, DWPP, and 319 NPS grants. **DWP-06-M2.** Annual coordination with NRCS to identify potential planning and implementation projects. **DWP-06-M3**. Review and support eligible nonpoint source activity funding applications for Clean Water State Revolving Fund (CWSRF) source water protection projects	**DWP-06-R1.** Date of participation and narrative description of projects selected for funding. Reported annually. **DWP-06-R2** Date of participation and narrative description of projects supported for funding. Reported annually. **DWP-06-R3.** Date of review and narrative summary of funding recommendations. Reported annually.

Actions	Milestones	Reporting Metrics
DWP-07 DEQ will create one or more watershed-based plans (which may include TMDLs) for watersheds serving as drinking water source areas in the North Coast or Mid Coast.	**DWP-07-M1.** Select at least one watershed for planning and enlist Public Water System interest and cooperation by December 2022. **DWP-07-M2.** Draft 9 key element plan by December 2023. **DWP-07-M3.** Final 9 key element plan by June 2024 and begin seeking funding and projects.	**DWP-07-R1.** Annual update on status of watershed-based plan completion for nonpoint source pollution-centered drinking water protection. Reported annually.
DWP-08. DEQ will conduct outreach to PWSs interested in local land acquisition and management strategies	**DWP-08-M1.** Provide information to 20 public water systems on opportunities for grants and funds for property acquisition or development of conservation easements within their source area.	**DWP-08-R1.** Number of water systems contacted and number of water systems pursuing land acquisition or conservation. Reported annually.

Objective 11: Community water systems (CWS) implement source water protection actions.

Table 14. Drinking water protection program actions, milestones, and reporting metrics that support objective 11.

Actions	Milestones	Reporting Metrics
DWP-09. DEQ (and OHA) will track and report annually on the number of community water systems with substantial implementation and the population served by those water systems.	**DWP-09-M1.** Oregon achieves substantial implementation for 22 community water systems per year for a total of 110 by Dec. 31, 2026. **DWP-09-M2.** Oregon achieves EPA's goal of 49 percent by number of community water systems with substantial implementation by Dec. 31, 2026. **DWP-09-M3.** Oregon achieves EPA's goal of 59 percent of Oregon's population served by community water systems with substantial implementation by Dec. 31, 2026.	**DWP-09-R1**. Reported annually for the period of July 1-June 30 in the OHA/DEQ annual Drinking Water Protection Program implementation report to EPA. **DWP-09-R2**. Number of water systems achieving Substantial Implementation for the first time and associated population served. Reported annually for the period of July 1-June 30. **DWP-09-R3**. Total number and percent by number of Community water systems with substantial implementation. Reported annually for the period of July 1-June 30. **DWP-07-R4**. Total population and percent of population served by Community water systems with substantial implementation. Reported annually for the period of July 1-June 30.

3.5 Groundwater Protection Program

Program Goal: Prevent groundwater contamination from nonpoint sources.

Objective 12: Increase awareness about groundwater quality and groundwater best management practices.

Table 15 Groundwater protection program actions, milestones, and reporting metrics that support objective 12.

Actions	Milestones	Reporting Metrics
GW-01. Work cooperatively with Deschutes County and local groups on the South Deschutes/North Klamath Groundwater Protection Project to identify and implement measures to protect groundwater quality.	**GW-01-M1.** Attend two meetings annually with local groups on the South Deschutes/North Klamath Groundwater Protection Project between 2022 and 2026.	**GW-01-R1.** Number of meetings attended. Reported annually.
GW-02. Partner with University of Oregon to identify messages that resonate with Southern Willamette Valley residents to get their drinking water wells tested or treated.	**GW-02-M1.** Well testing message developed by end of 2026.	**GW-02-R1.** Status of project. Reported annually.
GW-03. Partner with Portland State University and Oregon State University to optimize grass seed production while protecting groundwater and air quality by studying how slow-release fertilizers affect seed yield and nitrate leaching to groundwater.	**GW-03-M1.** Slow release fertilizer study completed by end of 2026.	**GW-03-R1.** Date study was completed. Reported annually. **GW-03-R2.** Description of study results and conclusions. Reported annually.
GW-04. Participate with EPA and the Partnership to Improve Nutrient Efficiency (PINE) group to complete lysimeter testing at 15 sites and share information about leaching and soils data back to producers.	**GW-04-M1.** Lysimeter testing completed	**GW-04-R1.** Status of project and summary of results. Reported annually.
GW-05. DEQ completes a biennial report describing the status of groundwater in Oregon; including efforts made to protect, conserve and restore ground water resources; and any grants awarded.	**GW-05-M1.** Completion of groundwater report by January 1 of each odd numbered year.	**GW-05-R1.** Date report was completed. Reported in 2023 and 2025 annual reports.

Objective 13: Support implementation of Groundwater Management Area Action Plans in Oregon's three groundwater management areas.

Table 16. Groundwater protection program actions, milestones, and reporting metrics that support objective 13.

Actions	Milestones	Reporting Metrics
GW-06. Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the Lower Umatilla Basin Action Plan.	**GW-06-M1.** Coordinate with the Lower Umatilla Basin GWMA Committee at least two times annually.	**GW-06-R2.** Number of meetings attended. Reported annually.
GW-07. Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the North Malheur County GWMA Action Plan.	**GW-07-M2.** Coordinate with the North Malheur County GWMA Committee at least four times annually and monthly if possible.	**GW-07-R2.** Number of meetings attended. Reported annually.
GW-08. Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the Southern Willamette Valley GWMA Action Plan.	**GW-08-M2.** Coordinate with the Southern Willamette Valley GWMA Committee at least two times annually and monthly if possible.	**GW-08-R2.** Number of meetings attended. Reported annually.
GW-09. Evaluate progress reducing groundwater contamination in Groundwater Management Areas	**GW-09-M1.** Complete a groundwater nitrate status and trend analysis every four years.	**GW-09-R1.** Status of analysis. Reported annually.

Objective 14: Monitor groundwater quality around the state.

Table 17. Groundwater protection program actions, milestones, and reporting metrics that support objective 14.

Actions	Milestones	Reporting Metrics
GW-10. Continue monitoring wells in Lower Umatilla Basin GWMA.	**GW-10-M1.** Complete quarterly groundwater sampling of approximately 31 wells.	**GW-10-R1.** Status of sampling. Reported annually.
GW-11. Continue monitoring wells in the Northern Malheur County GWMA.	**GW-11-M1.** Complete groundwater sampling of approximately 36 wells annually.	**GW-11-R1.** Status of sampling. Reported annually.

GW-12. Continue monitoring wells in the Southern Willamette Valley GWMA.	**GW-12-M1.** Complete groundwater sampling at approximately 27 locations annually.	**GW-12-R1.** Status of sampling. Reported annually.
GW-13. Characterize groundwater quality outside of groundwater management areas.	**GW-13-M1.** Complete groundwater sampling at approximately 50 wells in one targeted geographic area annually.	**GW-13-R1.** Name and description of the groundwater monitoring geographic area. Reported annually. **GW-13-R1.** Status of sampling. Reported annually.

3.6 Section 319 Grant Program

Program Goal: Reduce nonpoint source pollution by funding the implementation of the state Nonpoint Source Management Program Plan.

Objective 15: Section 319 pass through grants fund projects that support the overall goals of watershed-based plans

Table 18. Section 319 program actions, milestones, and reporting metrics that support objective 15.

Actions	Milestones	Reporting Metrics
319-1. DEQ or EPA reviews watershed-based plans or alternative plans for inclusion as priorities in the 319 grant RFP.	**319-1-M1**. 100% of priorities included in the 319 grant RFP have been reviewed using a checklist approach that specify how the plans address the required elements of a watershed-based plan or alternative plan as presented in EPA's 319 grant guidelines (USEPA, 2013).	**319-1-R1.** Percent of priorities included in the 319 RFP that implement a watershed-based plan or alternative plan. Reported annually. **319-1-R2.** Number of watershed-based plan or alternative plan checklists reviewed during the reporting year. Reported annually. **319-1-R3.** Total number of watershed-based plan or alternative plan checklists that have been reviewed and included in the 319 grant RFP to date. Reported annually. **319-1-R4.** Description of new watershed-based plan or alternative plan checklists reviewed including geographic area covered and pollutants addressed. Reported annually.

Actions	Milestones	Reporting Metrics
319-2. Solicit and select 319 projects that support priorities.	**319-2-M1.** Annually, 100% of funded projects demonstrate progress implementing project objectives. **319-2-M2.** 100% of grant recipients submit an annual performance report no later than June 30th of each year.	**319-2-R1.** Number of new nonpoint source projects funded using 319 dollars during the reporting period. Reported annually. **319-2-R2.** Number of open 319 grant agreements during the reporting period. Reported annually. **319-2-R3.** Cumulative number of nonpoint source projects funded using 319 dollars starting in 319 fiscal year 2022 through fiscal year 2026. Reported annually. **319-2-R4**. Total amount of 319 pass through funds used to fund projects during the reporting period. Reported annually. **319-2-R5.** Cumulative amount 319 pass through funds used to fund all nonpoint source projects starting in 319 fiscal year 2022 through fiscal year 2026. Reported annually. **319-2-R6.** Description of each approved or open 319 workplan including Project Name, Agreement status, Agreement Number, Grant Recipient, satisfactory progress determination, and a project description that includes identification of the workplan objectives. Reported annually. **319-2-R7.** Description of each open 319 workplan activities or outputs that occurred or were reported to DEQ during the reporting period. Reported annually. **319-2-R8.** Number and percent of grant recipients that submitted an annual performance report no later than June 30th of each year. Reported annually. **319-2-R9.** Number and percent of open 319 workplans with DEQ project officers' determination of satisfactory progress. Reported annually.

Objective 16: Administer 319 grant funding efficiently and effectively and consistent with legal obligations.

Table 19. Section 319 program actions, milestones, and reporting metrics that support objective 16.

Action	Milestones	Reporting Metrics
319-3. Requests for Proposal (RFPs) for 319 sub-awards are released in a timely manner.	**319-3-M1.** Annual RFP released by March 30th of each year.	**319-3-R1.** Date 319 grant RFP was issued. Reported annually.
319-4. DEQ submits an application for funds to EPA.	**319-4-M1.** Submitted application of funds to EPA annually by May 30.	**319-4-R1.** Date application was submitted. Reported annually.
319-5. Score 319 sub-awards and obligate funds in a timely manner.	**319-5-M1.** Grant application scoring and eligibility criteria are updated annually. **319-5-M2.** 100% of sub-awards are obligated within one year after the EPA grant award.	**319-5-R1**. Date EPA grant was awarded. Reported annually. **319-5-R2.** Date each sub award was obligated. Reported annually. **319-5-R3.** Percent of total sub-awards obligated within one year after EPA grant award. Reported annually.
319-6. Manage 319 sub-awards consistent with legal obligations and in an efficient manner.	**319-6-M1.** 100% of grant dollars are spent by the grant end date and no later than five years from the start date or the dollars are reobligated to a more current existing 319 grant. **319-6-M2.** Grant progress reports are submitted to EPA via GRTS annually.	**319-6-R1.** Percent of grant dollars spent by grant end date or reobligated to a more current grant. Reported annually. **319-6-R2.** Date annual grant progress reports were submitted to EPA via GRTS. Reported annually.
319-7. Determine the feasibility of developing an online, iterative grant application.	**319-7-M1**. Completed feasibility findings by Dec 31, 2022.	**319-7-R1**. Date of completed feasibility determination of online application process. Reported in 2022 annual report. **319-7-R2**. Summary description of feasibility status, conclusions and any anticipated or completed actions. Reported annually.

Action	Milestones	Reporting Metrics
319-8. Update review and/or scoring criteria and project eligibility requirements for 319 funds,	**319-8-M1**. Completion of review and updates to scoring criteria.	**319-8-R1**. Date of completed review. Reported in 2022 annual report. **319-8-R2**. Narrative summary describing review status and any anticipated or completed actions. Reported annually.

3.7 Clean Water State Revolving Fund

Program Goal: Assist communities in restoring, maintaining, and enhancing water quality by offering financial assistance for water pollution control, and water quality improvement and protection projects

Objective 17: Fund innovative and nontraditional projects that address and control nonpoint source pollution.

Table 20. Clean Water State Revolving Fund program actions, milestones, and reporting metrics that support objective 17.

Actions	Milestones	Reporting Metrics
CWSRF-1. Fund nonpoint pollution control projects with Oregon CWSRF	**CWSRF-1-M1.** Continue to provide CWSRF loans for nonpoint source pollution control projects in Oregon annually over the next five years.	**CWSRF-1-R1.** Number of new nonpoint source projects funded using CWSRF dollars during the reporting period. **CWSRF-1-R2.** Cumulative number of nonpoint source projects funded using CWSRF dollars since Jan 1, 2022. **CWSRF-1-R3.** Total amount of CWRSF dollars used to fund each nonpoint source projects during the reporting period. **CWSRF-1-R4.** Cumulative CWSRF dollars used to fund all nonpoint source projects since Jan 1, 2022. **CWSRF-1-R5.** Description of each active CWSRF nonpoint source project including Project Name, Agreement or Loan Number, Recipient, and a project description that includes identification of the project objectives. **CWSRF-1-R6.** Description of project outputs or accomplishments that occurred or were reported to DEQ during the reporting period.

3.8 Agriculture Water Quality

Program Goal: Control of pollution from agricultural practices in order to attain and maintain water quality standards.

Objective 18: DEQ and ODA agree on their respective statutory obligations and responsibilities to attain and maintain water quality standards on agricultural lands and document that agreement in a Memorandum of Agreement.

Table 21. Agriculture water quality management program actions, milestones, and reporting metrics that support Objective 18.

Actions	Milestones	Reporting Metrics
AG-01. DEQ and ODA complete a revision to the DEQ/ODA Memorandum of Agreement	**AG-01-M1.** DEQ and ODA complete a revision to the MOA by June 30, 2023.	**AG-01-R1.** Status of MOA revision reported in the 2023 annual report or until complete.

Objective 19: DEQ reviews ODA area plans and rules and provides comment to ODA.

Table 22. Agriculture water quality management program actions, milestones, and reporting metrics that support Objective 19.

Actions	Milestones	Reporting Metrics
AG-02. DEQ reviews ODA's area plan and rules and advises ODA of any changes or additions necessary to achieve water quality standards and meet TMDL agricultural load allocations.	**AG-02-M1.** DEQ has submitted to ODA written comments and recommendation of any changes or additions to area plans and rules during the biennial review process for 100% of management areas where a full review was conducted (or 100% of all management areas at least once every four years).	**AG-02-R1.** Identification of all management areas from the previous calendar year in which ODA completed a biennial review including which reviews were full reviews and which were lite reviews. Reported annually. **AG-02-R2.** Identification of all management areas from the previous calendar year in which DEQ submitted to ODA written comments and recommendations. Reported annually.

Objective 20: ODA and partners track progress and water quality response in strategic implementation areas.

Table 23. Agriculture water quality management program actions, milestones, and reporting metrics that support Objective 20.

Actions	Milestones	Reporting Metrics
AG-03. Development monitoring plans for each SIA.	**AG-03-M1.** A monitoring plan is approved for each SIA by the statewide Monitoring and Assessment Group (MAG) within one year of signing of SIA agreement. The MAG consists of representatives from ODA, OWEB, DEQ, and ODFW.	**AG-03-R1.** Number and identification of SIA monitoring plans approved by MAG in the previous calendar year. Reported annually.
AG-04. Implementation of SIAs	**AG-04-M1.** In closed SIAs, 100% of taxlots identified on the first evaluation as potentially or likely out of compliance with evaluated area rules are in compliance.	**AG-04-R1.** Percentage of SIA properties in closed SIAs that are deemed in compliance with evaluated area rules. Reported annually. **AG-04-R2.** Percentage of taxlots identified as having no regulatory concerns on the first evaluation. Reported annually. **AG-04-R3.** Total number of SIA properties in closed SIAs that are deemed in compliance with evaluated area rules. Reported annually. **AG-04-R4.** Total number of taxlots identified as having no regulatory concerns on the first evaluation. Reported annually. **AG-04-R5.** Total number of evaluated taxlots in SIAs. Reported annually. **AG-04-R6.** Identification of closed SIAs. Reported annually.

3.9 Private Forestry

Program Goal: Control of pollution from private forest practices in order to attain and maintain water quality standards.

Objective 21: Implementation of the Private Forest Accord.

Table 24. Private Forestry program actions, milestones, and reporting metrics that support Objective 21.

Actions	Milestones	Reporting Metrics
PF-01. Adoption of permanent rules consistent with the requirements of the Private Forest Accord Report.	**PF-01-M1.** Rules are adopted by November 30, 2022.	**PF-01-R1.** Status of rule development and adoption. Reported in 2022 annual report or until complete.
PF-02. Fish distribution maps are updated.	**PF-02-M1**. An initial update is incorporated into ODF FERNS no later than July 1, 2023.	**PF-02-R1**. Status of mapping and incorporation into ODF FERNS. Reported annually until complete.
PF-03. Maps identifying perennial streams in Oregon are updated.	**PF-03-M1**. The updated maps identifying perennial streams are incorporated into ODF FERNS no later than July 1, 2025.	**PF-03-R1**. Status of mapping and incorporation into ODF FERNS. Reported annually until complete.
PF-04. A habitat conservation plan consistent with the Private Forest Accord Report is developed.	**PF-04-M1.** The habitat conservation plan is submitted to the National Marine Fisheries Service and the U.S. Fish and Wildlife Service on or before December 31, 2022.	**PF-04-R1.** Status of habitat conservation plan and date submitted. Reported in 2022 annual report or until complete.
PF-05. The state agencies complete other actions necessary to implement the requirements of the Private Forest Accord Report.	**PF-05-M1**. Completion of other actions necessary to implement the requirements of the Private Forest Accord Report.	**PF-05-R1**. Status and summary of other actions completed.

3.10 Oregon Watershed Enhancement Board

Program Goal The state implements its nonpoint source funding programs efficiently and effectively, including necessary financial management.

Objective 22: The State evaluates that major recipients of state grant funds demonstrate effective organizational governance and management.

Table 25. OWEB actions, milestones, and reporting metrics that support Objective 22.

Actions	Milestones	Reporting Metrics
OWEB-01. OWEB funds Watershed Councils that demonstrate effective organization governance and management.	**OWEB-01-M1.** 100% of watershed councils funded by OWEB demonstrate effective organization governance and management using OWEB merit criteria	**OWEB-01-R1.** Percent of OWEB funded watershed councils that demonstrate effective organizational governance and management using OWEB merit criteria. Evaluated for years 2021, 2023, 2025 and reported in the 2022, 2024, and 2026 nonpoint source annual report.

3.11 Toxics Reduction Strategy

Program Goal: Reduce toxic chemicals in Oregon's environment

Objective 23: Support and complement DEQ's core toxics reduction and assessment in water quality programs

Table 26. Toxics reduction strategy actions, milestones, and reporting metrics that support Objective 23.

Action	Milestone	Reporting Metrics
TRS-01. Update toxics Focus List.	**TRS-01-M1.** Cross-program focus list reviewed and, if necessary, revised as early as July 1, 2026.	**TRS-01-R1.** Date focus list was reviewed or revised. Reported in the 2026 annual report. **TRS-01-R1.** Summary of Focus List changes Reported in the 2026 annual report.
TRS-02. Identify analytical methods or process improvements needed to analyze Focus List chemicals.	**TRS-02-M1.** As early as July 1, 2023, DEQ has a tracking tool identifying the status of which Focus List chemicals DEQ is approved to sample and process, and which chemicals require additional method development and certification.	**TRS-02-R1.** Status of tracking tool. Reported annually starting in the 2023 annual report. **TRS-02-R2.** Summary of Focus List chemicals for which DEQ laboratory is newly certified to sample and process. Reported annually.
TRS-03. Enhance and update the environmental justice criteria and weight in the Pesticide Stewardship Program	**TRS-03-M1.** Proposal to the Pesticide Management Team developed and submitted by July 2024.	**TRS-03-R1.** Date proposal submitted. Reported in 2024 annual report. **TRS-03-R2.** Summary description of criteria. Reported in 2024 annual report.

3.12 Water Quality Pesticide Management Team

Program Goal: Reduce the impact of pesticide use on water quality across the state.

Objective 24: Reduce all pesticides from high and moderate level of concern to low level of concern.

Table 27. Pesticide Stewardship Partnership program actions, milestones, and reporting metrics that support Objective 24.

Action	Milestone	Reporting Metrics
PSP-01. Monitor and analyze pesticide levels in waterbodies.	**PSP-01-M1.** Sampling complete, data submitted to AWQMS and analyzed by DEQ staff by March of the following year. .	**PSP-01-R1.** Summary of data analysis in WQMPT and watershed-based PSP reports and presentations. Reported annually.
PSP-02. Communicate monitoring results and management strategies to stakeholder groups and policy makers to increase understanding of the pesticide water quality programs and results and gain commitment on implementing actions to reduce priority pesticides in surface waters	**PSP-02-M1.** Attended meetings during the spring and winter with stakeholder groups, agency leadership and policy makers to provide analysis summary of monitoring results to inform decision-making, plans, and implementation actions.	**PSP-02-R1.** Number of meetings attended and summaries delivered on monitoring results. Reported annually.
PSP-03. Provide technical assistance grants to PSP groups for the research and implementation of pesticide reduction strategies.	**PSP-03-M1.** Technical assistance grants awarded during each biennium	**PSP-03-R1.** Number of projects funded. Reported annually. **PSP-03-R2.** Description of project objectives. Reported annually. **PSP-03-R3.** Project objectives accomplished. Reported annually. **PSP-03-R4.** Summary of Technical Assistant grants provided in the program's end of biennium reports (2022 and 2024).
PSP-04 Sponsor waste collection events across the state to safely dispose of excess or banned chemicals and prevent them from entering any waterways.	**PSP-04-M1.** At least one waste collection event completed each year	**PSP-04-R1.** Number of collection events, amount collected and number of participants. Reported annually.

3.13 Nonpoint Source Program

Objective 25: Update and report progress implementing Oregon's nonpoint source management program plan.

Table 28. Nonpoint source program actions, milestones, and reporting metrics that support Objective 25.

Action	Milestone	Reporting Metrics
NPS-01. Update Oregon's nonpoint source management program plan at least every five years.	**NPS-01-M1.** Draft program plan issued for public comment by June 30, 2026. **NPS-01-M2.** Program plan submitted to EPA by November 30, 2026.	**NPS-01-R1.** Date program plan issued for public comment. Reported in 2026 annual report. **NPS-01-R1.** Date program plan submitted to EPA. Reported in 2026 annual report.
NPS -02. Complete an annual nonpoint source report that describes the progress in implementing the State's nonpoint source management program plan.	**NPS -02-M1.** Annually, DEQ submits the completed nonpoint source program annual report to EPA by May 30.	**NPS -02-R1.** Date annual report submitted to EPA. Reported annually.
NPS-03. Best management practices and other strategies are implemented to reduce pollutant loading.	**NPS-03-M1.** Summarize and report the quantity of practices and management strategies implemented in each subbasin in Oregon in the nonpoint source annual report.	**NPS-03-R1.** The annual quantity of practices and management strategies implemented for each HUC8 subbasin. Reported annually.
NPS-04. On an annual basis where data is available, complete an assessment of surface water quality status and trends in attaining water quality standards and instream TMDL targets.	**NPS-04-M1.** Completion of a statewide status and trends report each year. In even numbered years, results are reported in the Integrated Report (see actions in Section 3.2) and in odd numbered years as an informational report on statewide status and trends.	**NPS-04-R1.** Identification of status and trend report finalized in odd numbered years. Reported in the 2023 and 2025 annual reports.
NPS-05. Determine with EPA available nonpoint source success stories documenting either water quality progress or attainment of water standards.	**NPS-05-M1.** Complete evaluation of potential success stories following completion of the Integrated Report.	**NPS-05-R1.** Summary describing status of evaluation and any success stories in development. Reported annually.

Objective 26: DEQ has a strategy to detect, manage, and control freshwater cyanobacteria harmful algal blooms that affect beneficial uses, drinking water, and recreational activities.

Action	Milestone	Reporting Metrics
NPS-06. Update DEQ's Freshwater Cyanobacteria Harmful Algal Bloom Strategy.	**NPS-06-M1.** Complete updated strategy by December 31, 2022	**NPS-06-R1.** Date update to the Freshwater Cyanobacteria Harmful Algal Bloom Strategy was completed. Reported in 2022 annual report. **NPS-05-R2.** Summary description of updated strategy. Reported in 2022 annual report.

4. Priorities for the Nonpoint Source Program

Priorities for the nonpoint source program are focused to three types of activities: 1) assessment and watershed planning efforts, 2) implementation of water quality improvement actions that abate known water quality impairments, and 3) actions that protect waters from degradation caused by present and future nonpoint source pollution.

Of the three priority areas identified, Oregon allocates the majority of resources towards water quality improvement.

4.1 Watershed Assessment and Planning Priorities

Watershed assessment refers to detailed assessment of surface and groundwater in specific geographic areas to determine if designated beneficial uses are supported; water quality standards are being attained and maintained; groundwater does not have elevated contaminant concentrations; and to identify nonpoint sources of pollution.

Watershed planning refers to efforts to develop various nonpoint source control plans that identify nonpoint source pollution causes or threats and the improvement or protection strategies that are needed to address them.

The state has three primary watershed assessment and planning efforts related to nonpoint sources:

- Total Maximum Daily Loads for high priority Category 5 waters
- Groundwater quality monitoring and assessment
- Drinking water source protection planning

4.1.1 TMDLs and waterbodies identified as water quality limited (Category 5).

OAR 340-042-0025 establishes that the public policy of Oregon is to protect, maintain and improve the quality of waters of the state for beneficial uses and to provide for prevention, abatement and control of water pollution.

For waters listed under Category 5 in Oregon's 303(d) and 305(b) Integrated Report assessment (see Section 2.1.3), Oregon prioritizes more detailed assessments through the development of Total Maximum Daily Loads (TMDLs). TMDLs are quantitative watershed-based pollution control plans and an analysis for attaining and maintaining water quality standards. TMDLs include a pollutant source assessment. This assessment includes a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet state water quality standards, allocations of portions of that amount to the pollutant sources or sectors, and a water quality management plan to achieve water quality standards.

Oregon's TMDL priorities and schedule are reviewed every two years when the state submits the biennial Section 303(d) list of Category 5 Water Quality Limited Waters to EPA and develops the Performance Partnership Agreement (Section 2.10.10). Each category 5 listing is given a TMDL priority (high, medium, and low) corresponding to the sequence that TMDLs will be developed. The priority and schedule for these TMDLs is based on a number of factors outlined in OAR 340-041-0040(3) including severity of the pollution, uses of the water, availability of resources to develop TMDLs, specific judicial requirements, number of listed waters in a watershed, listing parameter, if a watershed has other TMDLs, and input from the public. DEQ takes public comment on the TMDL priorities every two years. Table 29 contains the list of high priority TMDLs submitted to EPA with the 2022 Integrated Report and represents the most current priorities at the time this plan was developed. We recommend readers refer to the most updated list of priorities as they become available. Any TMDL priority updates will be reported in the nonpoint source pollution program annual report described in Section 5.3.1.

Table 29. TMDL priority ranking as submitted in Oregon's 2022 Integrated Report.

Priority	TMDL Project Name(s)	Geographic Extent (with HUCs)	Listed Pollutants
High	Coquille Subbasin	17100305 - Coquille Subbasin The Temperature TMDL excludes the area covered by the Upper South Fork Coquille Temperature TMDL	Dissolved Oxygen, E. coli, Fecal Coliform, pH, Temperature
High	Powder, Burnt, and Brownlee Subbasins	17050201 - Brownlee Reservoir Subbasin" 17050202 - Burnt Subbasin 17050203 - Powder Subbasin (Extent excludes Snake River and Brownlee Reservoir)	E. coli, Fecal Coliform
High	Sandy Subbasin	17080001 - Lower Columbia-Sandy (Subbasin extent excludes Columbia River)	Temperature
High	Upper Yaquina Watershed	1710020401 - Upper Yaquina River Watershed	Dissolved Oxygen, E. coli, Fecal Coliform
High	Lower Willamette and Clackamas Subbasins	17090011 - Clackamas Subbasin 17090012 - Lower Willamette Subbasin (Excludes the rivers included in the Willamette River Mainstem and Major Tributaries TMDL)	Temperature
High	Middle Willamette Subbasins	17090005 - North Santiam Subbasin 17090006 - South Santiam Subbasin 17090007 - Middle Willamette Subbasin 17090009 - Molalla-Pudding Subbasin (Excludes the rivers included in the Willamette River Mainstem and Major Tributaries TMDL)	Temperature

Priority	TMDL Project Name(s)	Geographic Extent (with HUCs)	Listed Pollutants
High	Southern Willamette Subbasins	17090001- Middle Fork Willamette Subbasin 17090002 - Coast Fork Willamette Subbasin 17090003 - Upper Willamette Subbasin 17090004 - McKenzie Subbasin (Excludes the rivers included in the Willamette River Mainstem and Major Tributaries TMDL)	Temperature
Med	Willamette River Mainstem and Major Tributaries	Willamette River and major tributaries downstream of the dams. The project area is located within the Willamette Basin (HUC 170900) and only includes the following rivers and extents: Willamette River including all side channels from the confluence of the Columbia River to the confluence of Coast Fork of the Willamette and Middle Fork of the Willamette Rivers; Multnomah Channel; Clackamas River downstream of River Mill Dam; Santiam River; North Santiam River downstream of Detroit Dam; South Santiam River downstream of Foster Dam; Long Tom River downstream of Fern Ridge Dam; McKenzie River downstream of the South Fork McKenzie River; South Fork McKenzie River downstream of Cougar Dam; Blue River downstream of Blue River Dam; Middle Fork Willamette River downstream of Dexter Dam; Fall Creek downstream of Fall Creek Dam; Coast Fork Willamette River downstream of Cottage Grove Dam; Row River downstream of Dorena Dam.	Temperature
Med	John Day River Basin	170702 - John Day Basin	Temperature

Priority	TMDL Project Name(s)	Geographic Extent (with HUCs)	Listed Pollutants
Med	Lower Deschutes, Crooked, Beaver - South Fork, and Trout Subbasins	17070303 - Beaver - South Fork Subbasin 17070304 - Upper Crooked Subbasin 17070305 - Lower Crooked Subbasin 17070306 - Lower Deschutes Subbasin 17070307 - Trout Subbasin	Chlorophyll-a, Dissolved Oxygen, E. coli, Harmful Algal Blooms, pH, Phosphorus, Temperature
Med	Lower Grande Ronde, Imnaha, and Wallowa Subbasins	17060102 - Imnaha Subbasin 17060105 - Wallowa Subbasin 17060106 - Lower Grande Ronde Subbasin	Temperature
Med	Malheur River Subbasins	17050115 - Middle Snake-Payette Subbasin 17050116 - Upper Malheur Subbasin 17050117 - Lower Malheur Subbasin 17050118 - Bully Subbasin 17050119 - Willow Subbasin (Extent excludes Snake River)	Temperature
Med	Middle Columbia-Hood, Miles Creeks	1707010502 - Eightmile Creek Watershed 1707010503 - Fifteenmile Creek Watershed 1707010504 - Mill Creek-Columbia River Watershed 1707010511 - Mosier Creek-Columbia River Watershed	Temperature
Med	North Umpqua Subbasin	17100301 - North Umpqua Subbasin	Temperature
Med	Powder, Burnt, and Brownlee Subbasins	17050201 - Brownlee Reservoir Subbasin 17050202 - Burnt Subbasin 17050203 - Powder Subbasin (Extent excludes Snake River and Brownlee Reservoir)	Dissolved Oxygen, pH, Phosphorus

Priority	TMDL Project Name(s)	Geographic Extent (with HUCs)	Listed Pollutants
Med	Rogue River Basin	17100307 - Upper Rogue Subbasin 17100308 - Middle Rogue Subbasin 17100309 - Applegate Subbasin 17100310 - Lower Rogue Subbasin 17100311 - Illinois Subbasin (Extent of biocriteria TMDLs is the Rogue River and Little Butte Creek Watershed (1710030708))	BioCriteria, Chlorophyll-a, Dissolved Oxygen, Harmful Algal Blooms, pH, Phosphorus
Med	Rogue River Basin	17100307 - Upper Rogue Subbasin 17100308 - Middle Rogue Subbasin 17100309 - Applegate Subbasin 17100310 - Lower Rogue Subbasin 17100311 - Illinois Subbasin	Temperature
Med	Schooner Creek	171002040708 - Schooner Creek Subwatershed	Turbidity
Med	Siletz River	1710020404 - Upper Siletz River Watershed 1710020405 - Middle Siletz River Watershed	Turbidity
Med	Snake River - Hells Canyon	Snake River, Brownlee Reservoir, Oxbow Reservoir, and Hells Canyon Reservoir	Methylmercury
Med	Snake River - Hells Canyon	Snake River, Brownlee Reservoir, Oxbow Reservoir, and Hells Canyon Reservoir	Temperature
Med	South Umpqua and Umpqua Subbasins	17100302 - South Umpqua Subbasin 17100303 - Umpqua Subbasin	Temperature
Med	Upper Deschutes and Little Deschutes Subbasins	17070301 - Upper Deschutes Subbasin 17070302 - Little Deschutes Subbasin	Chlorophyll-a, Dissolved Oxygen, Harmful Algal Blooms, pH, Temperature
Med	Walla Walla Subbasin	17070102 - Walla Walla Subbasin	Temperature

Priority	TMDL Project Name(s)	Geographic Extent (with HUCs)	Listed Pollutants
Med	Willow Creek Subbasin	17070104 - Willow Subbasin	Temperature

4.1.2 Groundwater Quality Monitoring and Assessment

DEQ has prioritized groundwater quality monitoring and assessment activities in the following areas:

- Lower Umatilla Basin Groundwater Management Area
- Northern Malheur County Groundwater Management Area
- Southern Willamette Valley Groundwater Management Area
- One non GWMA regional area per year

The goal for this monitoring is to provide a comprehensive assessment of groundwater quality in vulnerable aquifers around the state. The program selects the one non-GWMA regional area based on a number of factors including:

- groundwater vulnerabilities and risk factors including presence of a shallow aquifer
- historical groundwater quality
- results from more current existing data such nitrate data collected during real estate transactions as required by statute (ORS 448.271)
- time elapsed since water quality data were last collected
- community interest
- opportunities to collaborate with other water monitoring efforts such as the Toxic Monitoring Program, Pesticide Stewardship Partnership, or groundwater quantity studies conducted by Oregon Water Resources Department

Focused geographic areas identified to date include the Mid-Rogue, North Coast, Walla Walla and Milton-Freewater, Harney County, Middle-Willamette, and Klamath. Under consideration is the Southern Deschutes, Crooked, and the Hood River/Mosier areas. DEQ compiles the monitoring and assessment results into geographical area reports each year. All studies include analysis of nitrate, arsenic, bacteria, and emerging contaminants. Additional parameters are sampled based on local risk factors and program capacity.

The Lower Umatilla Basin Groundwater Management Area action plan identified several actions that are currently unfunded. DEQ is seeking opportunities to fund some of these actions. Priority actions include partnering with the United States Geological Survey (USGS) to study, characterize, and develop a comprehensive groundwater and hydrology transport model for the Lower Umatilla Basin. DEQ is also seeking to develop and market a voluntary best management practice certification program to inventory and document the extent of best management practice implementation.

DEQ would also like to develop a program that works with cities or counties in groundwater management areas to implement amendments to comprehensive plans and land use regulations. The amendments will address identified groundwater protection and management concerns, including the cumulative impacts of clustered and high-density septic systems.

4.1.3 Drinking Water Source Protection Planning

Drinking water source areas represent the upstream contributing watershed of a drinking water intake or the recharge areas for a well or spring that supplies communities with drinking water. In these areas the DEQ and OHA drinking water protection team provides the water systems and communities with detailed information on the watershed

or recharge area and the risks to water quality. DEQ also provides technical assistance to develop and implement management strategies to reduce the risks. Protection planning priorities include the following:

- Develop updated and enhanced source water assessments for community and non-transient non-community public water systems and evaluate risks to drinking water source areas in cooperation with state and federal agencies and other interested parties.
- Provide technical assistance to OHA, water systems and communities in evaluating susceptibility to cyanotoxins, emerging contaminants (including but not limited to PFAS), and other toxic substances.
- Provide DEQ Basin Coordinators and ODA information to support source water protection in agricultural water quality management plans
- Create one or more watershed-based plans for a drinking water source area in the North Coast or Mid Coast.
- Encourage/facilitate public water systems to submit water quality monitoring data for raw (untreated) source water for DEQ to use in evaluating impaired waterbodies.
- Coordinate and participate with OHA in statewide training opportunities to promote drinking water source protection. Develop education and outreach materials as needed. Maintain and update the program web page.
- Update and maintain existing Geographic Information System data for the assessment and drinking water protection activities. Make data layers available to state partners and distribute the statewide GIS coverage layer(s) that includes all delineated drinking water source areas, surface water sensitive areas, and identified potential contaminant sources.

4.2 Water Quality Improvement Priorities

The state has prioritized water quality improvement activities for the following:

- Waterbodies and watersheds with nonpoint water pollution control plans
- Within agriculture water quality strategic implementation areas and focus areas
- Pesticide Stewardship Partnership watersheds
- Drinking water source areas

4.2.1 Nonpoint Water Pollution Control Plans

Oregon focuses water quality improvement resources on implementing a variety of nonpoint water pollution control plans. These plans are typically developed to address water quality impairments at the watershed scale, within a specific jurisdiction or regional area, or actions needed to control pollution from a specific nonpoint pollutant source or sector. The practices and strategies intended to implement the following plans are priorities for implementation under this plan:

- TMDLs
- TMDL Water Quality Management Plans
- TMDL Implementation Plans
- Stormwater Management/Master Plans
- Watershed Council Action Plans
- Soil and Water Conservation District Strategic Plans

- Source Water Protection Plans
- Water Conservation Plans
- Oregon Plan for Salmon and Watersheds (as determined by OWEB)
- Coastal Nonpoint Pollution Control Plan (CNPCP)
- National Estuary Comprehensive Conservation and Management Plans
- Federal Water Quality Restoration Plans
- Ground Water Management Area Action Plans
- Agriculture Water Quality Management Area Plans
- State Forest Management Plans
- DLCD's water quality related Model Code guidebooks
- Watershed-based plans and alternative watershed-based plans as defined by EPA's 319 grant guidance (USEPA, 2013).
- Any other relevant nonpoint water pollution control plan as determined by DEQ

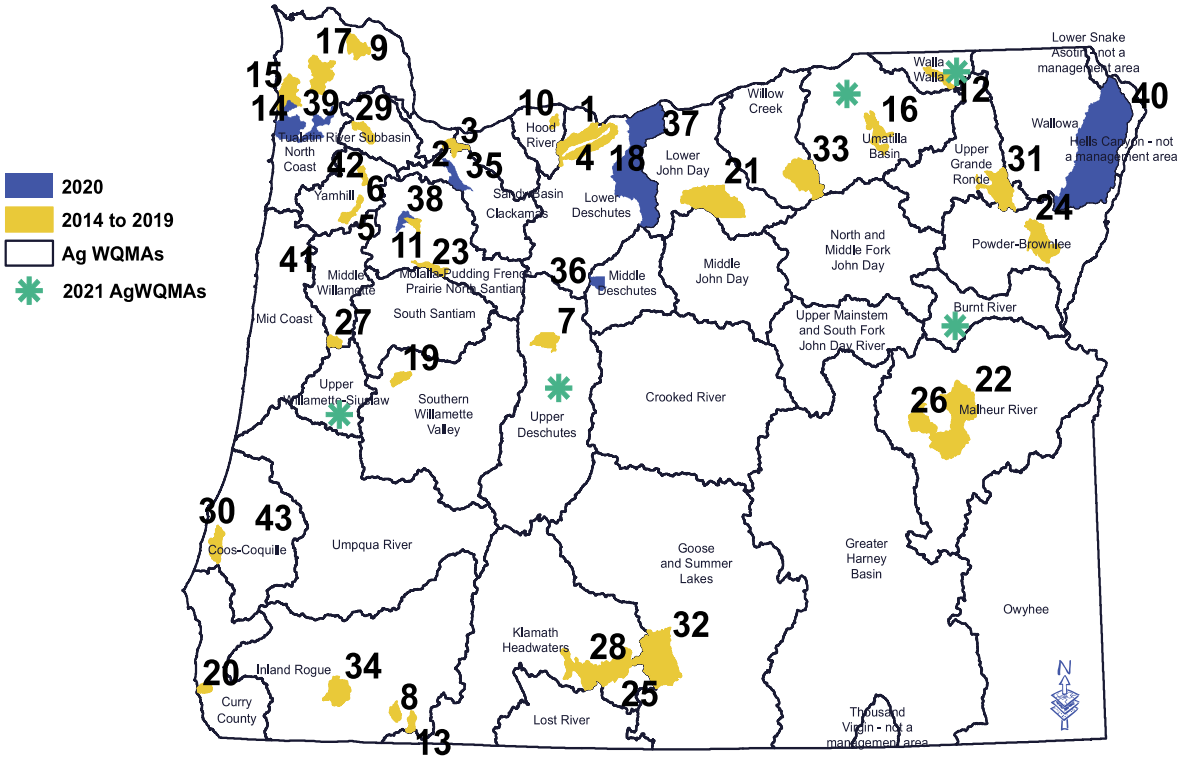
4.2.2 Agriculture Strategic Implementation Areas

Oregon takes a coordinated approach to address priority agriculture water quality concerns and improve streams for fish and wildlife. Strategic implementation areas are developed by the Oregon Department of Agriculture after discussions with other state agencies, local partners, and stakeholders; and review of local information and water quality data. The initiative concentrates technical and financial resources to agricultural areas to address water quality concerns and includes four key components:

1. Documenting compliance with Oregon's agricultural water quality regulations
2. Voluntary, incentive-based conservation
3. Monitoring to track water quality and landscape conditions
4. Collaborative partnerships

As of Sept. 30, 2021, ODA has established 48 strategic implementation areas and has plans to establish more.

Figure. ODA Strategic Implementation Areas 2014-2021.



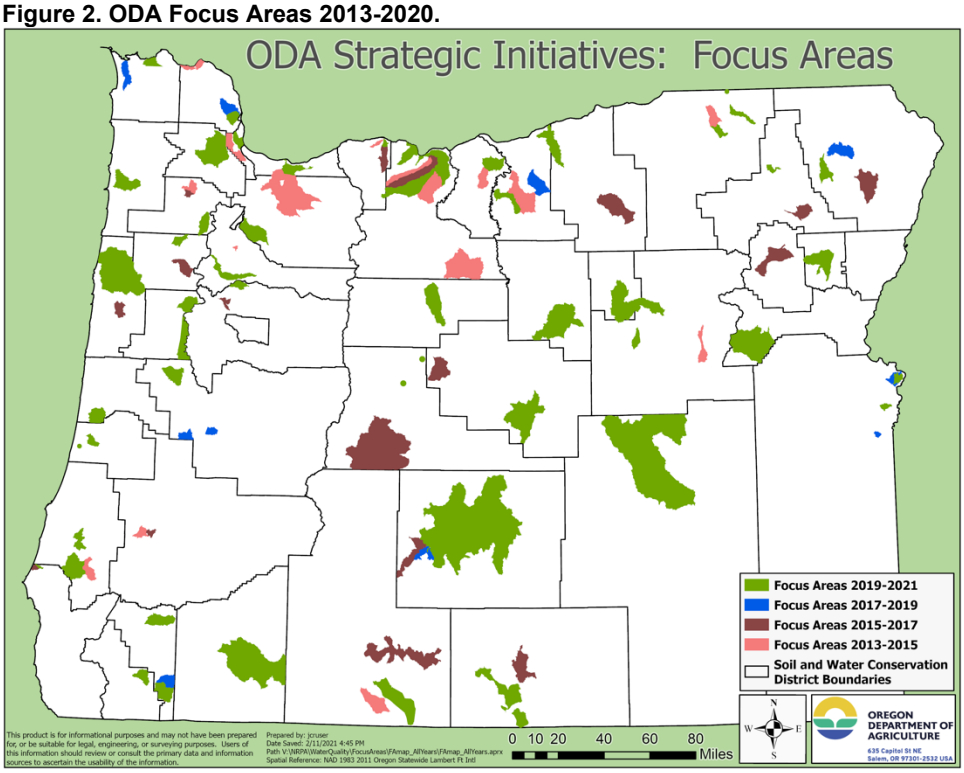
1 – Mill Creek
2 – Noyer Creek
3 – Upper Johnson Creek
4 – Threemile Creek
5 – Lower Salt Creek
6 – Lower North Yamhill River
7 – Indian Ford Creek
8 – Wagner Creek
9 – Upper Nehalem River
10 – Odell Watershed
11 – Lower Abiqua Creek
12 – Cache Hollow
13 – Neil Creek
14 – Lower NF Nehalem River
15 – Nehalem Bay
16 – McKay Birch
17 – Mid-Nehalem River
18 – Eightmile
19 – Camp Creek
20 – Pistol River
21 – Thirtymile Creek
22 – Lower North Fork Malheur
23 – Walker – Stout
24 – Lower Powder River
25 – Upper Sprague River
26 – Malheur River – Drewsey
27 – Upper Muddy Creek
28 – Middle Sprague River
29 – Lower Gales & Carpenter Creeks
30 – Lampa & Bear Creeks
31 – Upper Catherine Creek
32 – Upper Chewaucan
33 – Upper Willow Creek
34 – Applegate River
35 – Lower & Middle Clear Creeks
36 – Campbell Creek
37 – Eastern Lower Deschutes
38 – Howell-Prairie
39 – North Tillamook
40 – Imnaha River
41 – North & East Fork Coquille River
42 – Lower South Yamhill
43 – Upper Yaquina

4.2.3Agriculture Focus Areas

ODA establishes focus areas in small agricultural watersheds with water quality concerns. Through the focus area process, the Soil and Water Conservation District delivers systematic, concentrated outreach and technical assistance. A key component of the focus area approach is measuring conditions before and after implementation to document the progress made.

Between 2013 and 2020, Soil and Water Conservation Districts established 89 focus areas, with ODA oversight (Figure 2, all colors). Fifty of these focus areas were open during the 2019-2021 biennium (Figure 2, green). For the 2021-2023 biennium, the focus area initiative is reduced, with 18 focus areas continuing.

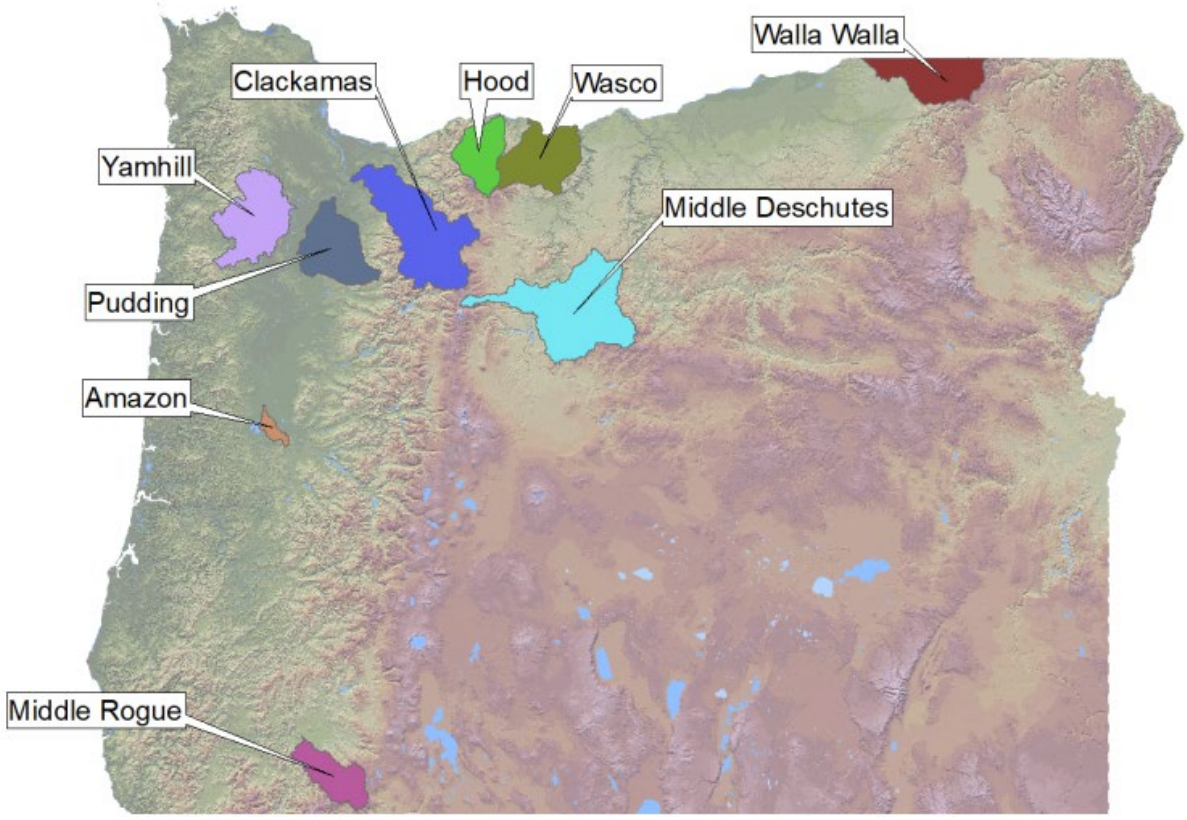
Figure 2. ODA Focus Areas 2013-2020.



4.2.4Pesticide Stewardship Partnership Watersheds

As of 2021, Oregon has identified nine watersheds to focus improvement of water quality affected by pesticide use. The watersheds shown in Figure 3 are the focus watersheds for the Pesticide Stewardship Partnership (Section 2.8.2). Periodically new watersheds or pilot watersheds are added into the program as funding allows.

Figure 3. Location of Pesticide Stewardship Partnership Watersheds as of 2021.



4.2.5Drinking Water Source Areas

When drinking water source areas are water quality impaired for parameters relevant to the treatability of drinking water (e.g. turbidity, suspended or bedded sediment, total/dissolved organic carbon), restoration of water quality and landscape ecological processes is necessary. Implementing needed pollution reductions and management measures are prioritized through the following:

- Engage with impaired public water systems, landowners, watershed councils, soil and water conservation districts, state and federal agencies, and other stakeholders to plan and implement changes needed to improve water quality through pollution reductions.
- Collaborate with and provide information and analysis to state and federal agencies for restoration and long-term resiliency in areas impacted by severe wildfires.

4.3 Water Quality Protection Priorities

The state has prioritized water quality protection for the following:

- Wilderness areas
- Outstanding Resource Waters
- Drinking water source areas
- Category 2 waterbodies with approved TMDL protection plans

4.3.1 Wilderness Areas

Wilderness areas represent a natural resource of unique importance. Congress has protected such areas by enacting the Wilderness Act, Public Law 88-577, 16 U.S.C. Sec. 1131, et seq. Those wilderness areas located within the geographical limits of Oregon are a major part of the cultural heritage of the citizens of Oregon and are a key element in developing and maintaining tourism and recreation as a viable industry. Thus, the environment of wilderness areas is deserving of the highest level of protection and safeguarding by the state in order to preserve Oregon's unique primitive and natural land areas. The Wilderness Act allows certain activities in wilderness areas. Most of these have minimal impact on the environment. However, mining and some other activities allowed by the Wilderness Act pose a serious threat of a substantial harm to the unique environment of wilderness areas. Therefore, DEQ has declared it a policy to maintain the environment of wilderness areas essentially in a pristine state and as free from air, water, and noise pollution as is practically possible. Alternation may only be permitted in in a manner compatible with recreational use and the enjoyment of the scenic beauty and splendor of these lands. This priority protection measure, implemented via OAR 340-13-0020, requires that no person engaged in an activity other than emergency or recreational within a wilderness area shall discharge any wastes into waters or conduct any activity which causes or is likely to cause any measurable increase in color, turbidity, temperature, or bacterial contamination; any measurable decrease in dissolved oxygen; any change in hydrogen ion concentration (pH); or any toxic effect on natural biota.

4.3.2 Outstanding Resource Waters

Outstanding Resource Waters are high quality waters that have extraordinary or unique character or ecological value and are identified by the state via the EQC as an outstanding state or national resource. Once outstanding resources waters are designated, the existing high water quality is protected by rule.

The process to designate outstanding resource waters is described in OAR 340-041-0004(8) and can occur in multiple ways including DEQ nominating water bodies for Outstanding Resource Waters designation during each Water Quality Status Assessment Report (305(b) Report); DEQ can bring a list of nominations for consideration to the EQC during each triennial Water Quality Standards Review; and the commission may consider designation at any time.

Oregon rules identify the following as priority waters for ORW consideration: (A) those in state and national Parks; (B) national wild and scenic rivers; (C) state scenic waterways; (D) those in state and national wildlife refuges; and (E) those in federally designated wilderness areas.

There are three designated outstanding resource waters in Oregon:

- The North Fork Smith River and its tributaries and associated wetlands located within the South Coast Basin. See OAR 340-041-0305(4).
- Waldo Lake and its associated wetlands located in the Willamette Basin. See OAR 340-041-0345(7).
- Crater Lake located in the Klamath Basin. See OAR 340-041-0185(6).

4.3.3 Drinking Water Source Areas

The drinking water protection team provides technical assistance to public water systems, local partners, and communities as they develop management strategies to reduce the risk of contamination or improve existing water quality to ensure a clean and treatable water source. Drinking water protection priorities include the following:

- Implement interagency agreement with OHA to promote drinking water protection in Oregon by providing technical assistance to public water systems and communities.
- Serve as lead agency in coordinating drinking water source protection activities with other state and federal agencies. Leverage the Clean Water Act and other programs and authorities to protect public water supplies.
- Coordinate and assist with implementation of the Clean Water Act tools and programs within the drinking water source areas.
- Work directly with Community Public Water Systems to identify and encourage drinking water protection projects that will qualify as Substantial Implementation.
- Partner with communities and other watershed and ground water stakeholders (including watershed councils, Soil and Water Conservation Districts and land trusts) to implement priority actions that minimize the risk of nonpoint source pollution (including turbidity, bacteria, nutrients, total dissolved solids, pesticides and other toxics) to public water supplies. Develop regional partnerships where feasible.
- Promote the use of Drinking Water State Revolving Loan Funds (loans and grants) and Drinking Water Providers Partnership grants for source water protection project development. Score surface water system applications in coordination with OHA and DWPP.
- Review and support eligible nonpoint source activity funding applications for Clean Water State Revolving Fund source water protection projects
- Coordinate with NRCS National Water Quality Initiative to assist local partners prepare proposals, support ongoing assessments and implementation, and prioritize source water protection areas for NRCS technical assistance.
- Coordinate and partner with OHA Emergency Preparedness and Planning program and communities to conduct local and state all-hazards planning. Assist and provide technical assistance to improving resiliency and ability to respond to emergencies and natural disasters that may impact watersheds supplying intakes.
- Encourage consideration of source water protection needs into local land acquisition and management strategies; provide information to communities on opportunities for grants and funds for property acquisition or development of conservation easements within their source area. Provide project support (i.e. technical assistance or grant administration) for grant funded projects
- When relevant, involve federal land management agencies (e.g. USFS or BLM) in technical assistance efforts when drinking water source areas include land and resources managed by those agencies
- Consult with Assessment, TMDL, and nonpoint source programs to ensure consideration of drinking water as a beneficial use in ongoing work.
- Engage with multiagency state government climate change workgroup to ensure drinking water is considered as a beneficial use.
- Participate in updates and renegotiation of MOUs with other state agencies with a role in nonpoint source pollution control (e.g., Departments of Forestry and Agriculture) to include priorities and actions relevant to drinking water protection. Engage those agencies in drinking water protection planning and implementation

through voluntary and/or regulatory means. Include drinking water considerations in state wildfire response and recovery efforts.

4.3.4 TMDL Protection Plans

TMDLs are commonly perceived as water quality improvement plans developed to address waters that are not attaining water quality standards and require a reduction in pollutant loading. In Oregon, TMDLs can also serve as protection plans for waters that already attain water quality standards. As described in the states antidegradation policy in OAR 340-041-004(1) and the states TMDL rules in OAR 340-042-0025(1), it is Oregon policy to protect and maintain the quality of waters and to provide for prevention of water pollution to ensure the full protection of all existing beneficial uses. Oregon typically develops TMDLs that address all the water quality limited waterbodies in a hydrologic unit with the pollutant specific TMDL issued for the entire watershed, subbasin, or basin, rather than addressing water quality limited waterbodies in isolation segment by segment. As described in Section 2.1.4, TMDL Water Quality Management Plans require designated management agencies and other responsible persons to develop an implementation plan and implement management strategies to attain and maintain the TMDL load allocations and water quality standards. Therefore, where TMDLs have been developed, the management strategies serve to both protect waterbodies already meeting water quality standards and restore those waterbodies not meeting water quality standards.

5. Program Management and Reporting

5.1 Financial Management

Oregon DEQ has well-established financial management and programmatic systems to ensure that federal Clean Water Act Section 319 dollars are used efficiently and consistently as required in the Nonpoint Source Program and Grants Guidelines for States and Territories (USEPA, 2013). All statutory and grant conditions applicable to Section 319 grants received by the State are included in contracts and pass through grant agreements (sub-grants) to community groups via DEQ's 319 Nonpoint Source Implementation Grant Program. This practice ensures that all sub-recipients follow all federal requirements. Further, such requirements are included in grant funding announcements and requests for proposals issued by the DEQ so that sub-recipients are aware of them prior to, or at the beginning of a project.

Each year 319 sub-grants are awarded via DEQ's 319 Nonpoint Source Implementation Grant Program. The programmatic process is typically implemented in the following way:

1. Annual nonpoint source implementation grant RFP
    a. DEQ's funding priority areas or projects are identified in the RFP November-January of each year. Priorities are targeted to watersheds areas with an approved watershed-based plan or alternative plan.
    b. RFP is open for application submittal January – March.

2. Application review and recommendations for funding
   a. Received applications are reviewed, scored, and ranked by DEQ staff.
   b. Nonpoint source workplans that are recommended for funding are included in the intended use plan submitted to EPA. Submittal of the intended use plan occurs during the months May-June.

3. EPA review Oregon's request for funding
   a. Typically, application for funds occur in late spring every year, dependent on submittal and approval of an annual update of the Nonpoint Source Management Plan
   b. The intended use plan is reviewed by EPA.
   c. EPA reviews Oregon's nonpoint source annual report and issues a decision on whether Oregon made satisfactory progress implementing its nonpoint source program plan during the previous year.
   d. After EPA has reviewed and approved the Intended Use Plan and determined Oregon has made satisfactory progress, the 319 grant funds are awarded to DEQ by October.

4. 319 Yearly Award
   a. The nonpoint source grant agreement template is updated with federal grant requirements. Oregon DOJ provides legal review and guidance on an updated grant template, typically two to three months, during October-December
   b. DEQ begins drafting agreements with each sub-recipient. The drafting process typically occurs October - March. The process includes review by DEQ's water quality program staff, budget staff, and procurement staff.

5. Nonpoint Source Grant Agreement
   a. Once all parties including the state and sub-recipient have a final agreement, the document is sent for signatures. The agreement includes the budget, workplan schedule, reporting requirements, and other details.
   b. The on the ground work typically occurs over two to three years. At times amendments are filed to extend work up to a maximum of five years. Circumstances for amendment of the agreement include: staff turnover; weather conditions; timing of work; or other circumstances.

6. Reimbursement, Invoicing, and Match
   a. Request for reimbursement occurs:
      i. At the local level, with project officer providing initial review and approval;/adjustment/disapproval of invoice
      ii. At DEQ headquarters, accounting level review
      iii. At DEQ headquarters program level review
   b. Agreement requirements, including:
      1. Reporting must be met
      2. Invoicing within agreed terms
      3. Eligible and sufficient match approved

7. Reporting to state and EPA

a. Nonpoint Source grant agreement includes required reporting, progress, final and OWEB reporting (riparian restoration)
b. GRTS reporting. Once a project has completed best management practices implementation including geo referencing is prepared.
c. Load reduction estimates for projects completed during previous year are prepared for EPA, typically by end of March.

5.2 Reasonable Assurance and Adaptive Management

Oregon has incorporated reasonable assurance and adaptive management concepts into rules and statutes, and both are core components of the State's nonpoint source program.

Reasonable assurance as defined in OAR 340-042-0030(9) is a demonstration that a TMDL will be implemented by federal, state or local governments or individuals through regulatory or voluntary actions including management strategies or other controls." OAR 340-042- 0040(4)(l)(J) requires a description of reasonable assurance that management strategies and sector-specific or source-specific implementation plans will be carried out through regulatory or voluntary actions. And as a factor in consideration of allocation distribution among sources, OAR 340-042-0040(6)(g) states that "to establish reasonable assurance that the TMDL's load allocations will be achieved requires determination that practices capable of reducing the specified pollutant load: (1) exist; (2) are technically feasible at a level required to meet allocations; and (3) have a high likelihood of implementation," which is also consistent with EPA past practice and guidance.

Adaptive management as defined in ORS 541.890(1) means applying management or practices over time and across the landscape to achieve site specific resource goals using an integrated and science-based approach that results in changes over time in response to feedback or monitoring.

The Clean Water Act Section 303(d) requires that a TMDL be "established at a level necessary to implement the applicable water quality standard." Federal regulations define a TMDL as "the sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background" [40 CFR 130.2(i)].

When a TMDL is developed for waters impaired by point sources only, the existence of the NPDES regulatory program and the issuance of NPDES permits provide the reasonable assurance that the wasteload allocations in the TMDL will be achieved. That is because federal regulations implementing the Clean Water Act require that water quality-based effluent limits in permits be consistent with "the assumptions and requirements of any available [wasteload allocation]" in an approved TMDL [40 CFR 122.44(d)(1)(vii)(B)].

Where a TMDL is developed for waters impaired by both point and nonpoint sources, it is the state's and EPA's best professional judgment as to the three point test in OAR 340-042-0040(6)(g) on reasonable assurance that the TMDL's load allocations will be achieved. Where there is a demonstration that nonpoint source load reductions can and will be achieved, a determination that reasonable assurance exists and allocation of

greater loads to point sources is appropriate. Without a demonstration of reasonable assurance that relied-upon nonpoint source reductions will occur, greater reductions to point sources wasteload allocations are needed.

In 2019 DEQ and EPA continued working on approaches to improve the clarity and documentation of reasonable assurance for implementation of TMDL and WQMPs. Reasonable assurance components are now documented in an accountability framework incorporated into the TMDL and WQMP, together with the implementation plans and annual reports of DMAs and responsible persons. The reasonable assurance accountability framework includes the following elements:

- Identification of the management strategies and specific implementation actions needed to achieve the identified pollutant reductions in the WQMP
- Timelines for implementing management strategies including schedules for revising permits, achieving appropriate incremental and measurable water quality targets, and completion of other measurable milestones
- Identification of persons, including DMAs, responsible for implementing the WQMP management strategies and for developing or revising an implementation plan (if the one in the WQMP is not used)
- Direction to DEQ to evaluate new or revised DMA implementation plans in order to determine they are at least as effective as the strategy set out in the TMDL and WQMP
- Commitment by DEQ to track the management strategies being implemented and evaluate achievements against established timelines and milestones
- Commitment by DEQ to take appropriate action if the DMAs or responsible persons fail to develop or effectively implement their implementation plan or fulfill milestones
- Commitment by DEQ to track water quality status and trends concurrently as management strategies are implemented

Beginning with the Klamath and Lost Subbasins Temperature TMDL and Willamette Basin Mercury TMDL that were issued in 2019, DEQ developed assessment and monitoring strategies to support the reasonable assurance and adaptive management strategy of the TMDLs and WQMPs. These monitoring and assessment strategies are oriented toward adaptive management, focus on evaluating administrative and water quality objectives and lay out monitoring design guidance for designated management agencies and responsible persons. The strategies will also be incorporated into TMDLs and WQMPs developed going forward and are working documents expected to change over time based on monitoring results and with input from designated management agencies, other responsible persons, and stakeholders.

5.3 Reporting

USC 33 § 1329(h) (commonly called Section 319 of the Clean Water Act) requires states to report annually on what their nonpoint source programs are accomplishing, including progress in meeting the schedule of milestones contained in the Nonpoint Source Management Program Plan (this plan), details on 319 projects, and to the extent that appropriate information is available, reductions in nonpoint source pollutant loading and improvements in water quality. Annually DEQ reports this information via Oregon's Nonpoint Source Pollution Program Annual Report, The Integrated Report or the

Statewide Water Quality Status and Trends Report, and through EPA's Grants Reporting and Tracking System.

5.3.1 Nonpoint Source Pollution Program Annual Report

The Oregon Nonpoint Source Pollution Program Annual Report documents progress in meeting the schedule of actions and milestones contained in the Nonpoint Source Management Program plan (this plan) and performance partnership agreement between Oregon DEQ and EPA. The report also includes a summary of annual nonpoint source program activities, accomplishments, and a summary of completed best management practices compiled from OWEB, NRCS, DEQ, and other sources.

5.3.2 Statewide Assessment and Water Quality Status and Trends Report

Annually, DEQ prepares a statewide assessment report that presents water quality status and trends over a twenty-year period as well as a summary of best management practices implemented. In even numbered years, the assessment is included as part of the Integrated Report (Section 2.1.3). In odd numbered years, DEQ publishes the assessment as the Water Quality Status and Trends Report. The analysis is intended to answer the following questions:

- Are waterbodies attaining water quality standards?
- Are waterbodies attaining TMDL targets, which may include TMDL allocations, TMDL surrogate measures, or TMDL endpoints?
- What is the percent excursion (spatially and over time)?
- What best management practices have been implemented and how many?
- Is water quality improving or degrading?
- What is the pace of improvement or degradation?
- How are water quality conditions similar or different between waterbodies, land uses, or monitoring stations?
- Where and when is monitoring data available?

The Water Quality Status and Trends report also provides a user-friendly way to explore data and results using an interactive web map.

5.3.3 Grants Reporting and Tracking System

As an on-going task, DEQ reports the following information to EPA's Grants Reporting and Tracking System available at https://www.epa.gov/nps/grants-reporting-and-tracking-system-grts:

- Drafted and approved 319 grant agreements implementing EPA approved work plans
- Amendments and completed projects
- Watershed based plan checklists or alternative plans
- Implementation work-plans and final reports
- Estimated load reductions resulting from funded 319 projects

To estimate load reductions from nutrients, sediment, and biochemical oxygen demand (BOD) DEQ uses EPA Region V's load reduction model, "Spreadsheet Tool for Estimating Pollutant Load" or STEPL.

Currently, the STEPL model can only be used to estimate reduction in BOD, total nitrogen, total phosphorus, and sedimentation loading, but not for other pollutants. The lack of a simple tool and the resources to estimate other pollutants means Oregon is chronically underreporting water quality improvements.

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Appendix A: Attorney General Certification

ELLEN F.
ROSENBLUM

LISA M. UDLAND
Deputy Attorney General

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION

December 15, 2021

Delivered by email only

Jennifer Wigal
Acting Administrator
Water Quality Division
Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232
jennifer.wigal@state.or.us

Re: Attorney General Certification in accordance with Section 319 of the Clean Water Act

Dear Ms. Wigal:

You have asked that our office update the certification provided by our office on July 10, 1989, pursuant to Section 319(b)(2)(D) of the Clean Water Act that the laws of the State of Oregon provided adequate authority to implement the nonpoint source pollution management program of the Department of Environmental Quality (DEQ) and the Environmental Quality Commission (EQC). As further discussed in this letter the laws of the State of Oregon provide adequate authority to carry out the proposed 2022 "Oregon Nonpoint Source Management Program." The authorities cited in the 1989 certification largely remain in place and applicable although many have been renumbered in the Oregon Revised Statutes. Current authorities for the 2022 Oregon Nonpoint Source Management Program are provided in this certification.

The Oregon Legislature has delegated broad authority to DEQ and the EQC to implement the Federal Water Pollution Control Act in Oregon. ORS 468B.030 provides:

> "In relation to the waters of the state, the Environmental Quality Commission by rule may establish effluent limitations, as defined in Section 502 of the Federal Water Pollution Control Act, as amended by Public Law 92-500, October 18, 1972, and other minimum requirements for disposal of wastes, minimum requirements for operation and maintenance of disposal systems, and all other matters pertaining to standards of quality for the waters of the state. The commission may perform or cause to be performed any and all acts necessary to be performed by the state to implement within the jurisdiction of the state the provisions of the Federal Water Pollution Control Act of October 18, 1972, and Acts amendatory thereof or supplementary thereto, and federal regulations and guidelines issued pursuant thereto."

Additionally, ORS 468B.035(1) provides:

> "The Environmental Quality Commission may perform or cause to be performed any acts necessary to be performed by the state to implement within the jurisdiction of the state the provisions of the Federal Water Pollution Control Act, P.L. 92-500, as amended, and federal regulations or guidelines issued pursuant to the Act. The commission may adopt, modify or repeal rules, pursuant to ORS chapter 183, for the administration and implementation of this subsection."

The authority granted to DEQ and the EQC by ORS 468B.030 and 468B.035 includes the authority to perform "any acts necessary to be performed by the state" to implement the Federal Water Pollution Control Act which includes Section 319 of the Act relating to nonpoint source pollution.

As to the elements of the 2022 Oregon Nonpoint Source Management Program, DEQ and the EQC have the following specifically applicable authorities:

I. Adopting Water Quality Standards: Authority to set water quality standards is at ORS 468B.048: "The Environmental Quality Commission by rule may establish standards of quality and purity for the waters of the state in accordance with the public policy set forth in ORS 468B.015." The statute then provides a list of factors that the EQC shall consider in establishing water quality standards.

II. Assessing Water Quality Conditions: Water quality monitoring and assessment are Provided for in ORS 468.035(1)(b) which authorizes DEQ and the EQC to conduct studies and complete research regarding the quality of waters of the state, and section (1)(m) of the same statute allows both entities to do field sampling to determine the degree of water pollution. Oregon Revised Statute 468B.039 provides procedures for DEQ to follow when developing methodologies for assessment of water quality when completing water quality assessment as provided in section 303(d) and 305(b) of the Clean Water Act.

III. Total Maximum Daily Loads (TMDLs): The Oregon Legislature provides the EQC and DEQ with the authority to develop TMDLs as follows: "the Environmental Quality Commission or Department of Environmental Quality may, by rule or order, impose and enforce limitations or other controls which may include total maximum daily loads, wasteload allocations for point sources and load allocations for nonpoint sources, as provided in the Federal Water Pollution Control Act (33 U.S.C. 1321) and federal regulations and guidelines issued pursuant thereto."

IV. Drinking Water Protection: As described in Section I. above, DEQ has authority to complete water quality assessments which includes surface and groundwater assessment related to drinking water. Per ORS 468B.110 DEQ has authority to develop TMDLs for watersheds serving as drinking water sources areas.

V. Ground Water Protection and Groundwater Management Areas: A state policy to prevent groundwater contamination is at ORS 468B.155. DEQ was tasked with implementing a groundwater resource protection strategy in ORS 468B.167. DEQ, along with WRD and the Oregon State University Agricultural Experiment Station are tasked with ongoing statewide groundwater monitoring in ORS 468B.190. When certain levels of contamination are found DEQ is directed to declare ground water management areas per ORS 468B.180 so that a plan can be developed to reduce contamination.

VI. Section 319 Grant Program: DEQ is designated in ORS 468.035(h) as the agency of the state for receipt of money from the federal government for purposes of "water pollution control, studies or research and to expend moneys after appropriation thereof for the purposes given." Per this authority and the general authority to implement the Clean Water Act in ORS 468B.030 and 468B.035 DEQ has the authority to provide Section 319 grants as described in the 2022 Oregon Nonpoint Source Management Program.

VII. Clean Water State Revolving Fund: Oregon's Clean Water State Revolving Funding finances projects that improve water quality and environmental outcomes, including projects focused on addressing nonpoint source pollution. The Clean Water State Revolving Fund is authorized by the Oregon Legislature in ORS 468.423-468.440.

VIII. Agricultural Water Quality: Oregon has an Agricultural Water Quality Management Act which directs the Oregon Department of Agriculture to develop plans and rules to control water pollution from agricultural activities. ORS 568.900-568.933. DEQ participates in review of these plans and has authority to enforce load allocations for nonpoint sources in ORS 468B.110.

IX. Private Forestry: The 2022 Oregon Nonpoint Source Management Program includes as an objective updating the Memorandum of Agreement with the Oregon Department of Forestry. DEQ is authorized by ORS 468.035(c) to cooperate with other states agencies on all matters pertaining to water pollution. The Oregon Forest Practices Act at ORS 527.765 grants the State Board of Forestry the authority to establish best management practices to limit nonpoint source discharges to maintain water quality. DEQ and the EQC have authority per ORS 468B.110 to enforce load allocations for non-point sources resulting from forest operations on forestlands if required to do so by the Clean Water Act.

X. Participate in Federal and State Agreements: Oregon state agencies are authorized in ORS 190.110(1) to enter into agreements with state or federal agencies in order to perform any duties otherwise authorized. Additionally, ORS 468B.035(1)(b) expressly allows DEQ to cooperate with others in conducting or preparing "studies, investigations, research and programs related to the quality and purity of the air or the waters of the state and to the treatment and disposal of wastes."

XI. Oregon Watershed Enhancement Board (OWEB): The Oregon Watershed Enhancement Board program is provided for in Section 4b.(2) of Article XV of the Oregon Constitution and ORS 541.890-541.972. ORS 468B.035(o) directs DEQ to coordinate any activities of the department related to OWEB-approved projects.

XII. Toxics Reduction Strategy: As discussed in Section I. above, the EQC is authorized to develop water quality standards for toxic pollutants. As discussed in Section II. above, DEQ is authorized to conduct monitoring and assessment of water quality which includes monitoring and assessment.

XIII. Water Quality Pesticide Management Team: As discussed in Section II. above, DEQ is authorized to conduct monitoring and assessment of water quality which includes monitoring and assessment for pesticides and pesticide degradants. DEQ is designated in ORS 468.035(h) as the agency of the state for receipt of money from the federal government for purposes of "water pollution control, studies or research and to expend moneys after appropriation thereof for the purposes given." This authority allows DEQ to expend moneys as technical assistance grants for research and implementation of pesticide reduction strategies.

XIV. Non-Point Source Program: The authorities to implement the Clean Water Act in ORS 468B.030 and 468B.035 include the authority to periodically review the plan required in Section 319 of the Clean Water Act.

Based on the review above, DEQ has adequate authority to implement the 2022 Oregon Nonpoint Source Management Program.

Sincerely,

Diane Lloyd

Diane Lloyd
Senior Assistant Attorney General
Natural Resources Section

DL:smn/167140946

Appendix B: Treatments Reported to OWRI

Table B-1. List of activity types, activities, and treatments used for reporting restoration actions to the Oregon Watershed Restoration Inventory (OWRI) database.

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
1	Instream	3	Animal species removal	8	Animal species removal
1	Instream	4	Bank stabilization	105	Other stream bank stabilization technique
1	Instream	4	Bank stabilization	106	Stream bank stabilized: bank resloped
1	Instream	4	Bank stabilization	107	Stream bank stabilized: bank resloped and rock revetment installed
1	Instream	4	Bank stabilization	108	Stream bank stabilized: bioengineering
1	Instream	4	Bank stabilization	109	Stream bank stabilized: log and rock revetment installed
1	Instream	4	Bank stabilization	110	Stream bank stabilized: log revetment installed
1	Instream	4	Bank stabilization	111	Stream bank stabilized: riprap (rock revetment) installed
1	Instream	5	Beaver introduction/encouragement	9	Beaver introduction/encouragement
1	Instream	6	Channel alteration	59	Main stream channel modified / created
1	Instream	6	Channel alteration	73	Pool excavated or blasted
1	Instream	6	Channel alteration	104	Spawning gravel placed

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
1	Instream	7	Engineered structures	35	Flow deflector installed: log
1	Instream	7	Engineered structures	36	Flow deflector installed: log and rock/boulder
1	Instream	7	Engineered structures	37	Flow deflector installed: rock/boulder
1	Instream	7	Engineered structures	95	Rock gabion installed
1	Instream	7	Engineered structures	128	V structure installed: concrete weirs
1	Instream	7	Engineered structures	129	V structure installed: log
1	Instream	7	Engineered structures	130	V structure installed: log and rock/boulder
1	Instream	7	Engineered structures	131	V structure installed: rock/boulder
1	Instream	7	Engineered structures	137	Weir installed (not below culvert): log
1	Instream	7	Engineered structures	138	Weir installed (not below culvert): log and rock/boulder
1	Instream	7	Engineered structures	139	Weir installed (not below culvert): rock/boulder
1	Instream	8	Instream habitat (anchored): Structure placement	7	Anchored habitat structures placed
1	Instream	8	Instream habitat (anchored): Structure placement	204	Beaver Dam Analog (BDA) structure installed
1	Instream	9	Instream habitat (not anchored): Boulder placement	12	Boulders placed
1	Instream	10	Instream habitat (not anchored): Large wood placement	57	Large wood placed

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
1	Instream	11	Instream habitat (not anchored): Other placement	13	Brush bundles placed
1	Instream	11	Instream habitat (not anchored): Other placement	44	Habitat structures placed: rootwads & boulders
1	Instream	11	Instream habitat (not anchored): Other placement	45	Habitat structures placed: rootwads & brush bundles
1	Instream	11	Instream habitat (not anchored): Other placement	96	Rootwads placed
1	Instream	13	Instream habitat (unknown whether anchored): Other placement	13	Brush bundles placed
1	Instream	13	Instream habitat (unknown whether anchored): Other placement	44	Habitat structures placed: rootwads & boulders
1	Instream	13	Instream habitat (unknown whether anchored): Other placement	45	Habitat structures placed: rootwads & brush bundles
1	Instream	16	Off-channel habitat	1	Alcoves created
1	Instream	16	Off-channel habitat	2	Alcoves created with tributary/spring input
1	Instream	16	Off-channel habitat	3	Alcoves created without tributary/spring input
1	Instream	16	Off-channel habitat	4	Alcoves enhanced
1	Instream	16	Off-channel habitat	5	Alcoves reconnected or access improved

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
1	Instream	16	Off-channel habitat	6	Alcoves: treatment not specified
1	Instream	16	Off-channel habitat	65	Off-channel ponds created
1	Instream	16	Off-channel habitat	66	Off-channel ponds created with tributary/spring input
1	Instream	16	Off-channel habitat	67	Off-channel ponds created without tributary/spring input
1	Instream	16	Off-channel habitat	68	Off-channel ponds enhanced
1	Instream	16	Off-channel habitat	69	Off-channel ponds: treatment not specified
1	Instream	16	Off-channel habitat	100	Side channels created / excavated
1	Instream	16	Off-channel habitat	101	Side channels protected
1	Instream	16	Off-channel habitat	102	Side channels reconnected to stream or access improved
1	Instream	16	Off-channel habitat	103	Side channels: treatment not specified
1	Instream	17	Other instream activity	76	Repair/maintenance of existing restoration project structure (non-dam)
1	Instream	18	Salmon carcass placement	98	Salmon carcasses placed
1	Instream	83	Instream invasive plant control	161	Instream treated for non-native or noxious plant species
2	Riparian	21	Changes in harvest/land management practices	14	Changes in harvest/land management practices
2	Riparian	22	Conservation easement	16	Conservation easement
2	Riparian	23	Riparian erosion control	78	Riparian erosion control

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
2	Riparian	25	Riparian invasive plant control	48	Riparian treated for non-native or noxious plant species
2	Riparian	27	Nurse log placement	61	Nurse logs placed
2	Riparian	29	Other riparian activity	178	Fence maintenance
2	Riparian	30	Riparian fencing	79	Riparian fencing
2	Riparian	31	Riparian tree planting	80	Riparian trees planted: conifer
2	Riparian	31	Riparian tree planting	81	Riparian trees planted: conifer and hardwood
2	Riparian	31	Riparian tree planting	82	Riparian trees planted: hardwood
2	Riparian	32	Riparian vegetation management	84	Other riparian vegetation management
2	Riparian	32	Riparian vegetation management	174	Riparian plant protection installed
2	Riparian	32	Riparian vegetation management	175	Nursery operation
2	Riparian	32	Riparian vegetation management	176	Riparian plant establishment (not planting activities)
2	Riparian	32	Riparian vegetation management	199	Debris/structures removal to allow riparian vegetation growth
2	Riparian	32	Riparian vegetation management	203	Riparian treated for juniper by clearing, burning, thinning, or removal
2	Riparian	33	Riparian vegetation planting	85	Riparian shrubs or herbaceous vegetation planted/reseeded
2	Riparian	34	Voluntary riparian tree retention	133	Voluntary riparian tree retention
2	Riparian	35	Water gap development	135	Water gap constructed

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
2	Riparian	52	Livestock stream access/crossing created or improved	58	Livestock stream access/crossing created or improved
3	Fish Passage	1	Crossing improvement	18	Culverts with rock or log weirs installed below outlet
3	Fish Passage	1	Crossing improvement	20	Culverts/structures/fords removed and not replaced
3	Fish Passage	1	Crossing improvement	22	Culverts/structures/fords replaced with bridges
3	Fish Passage	1	Crossing improvement	23	Culverts/structures/fords replaced with culverts placed embedded or flat
3	Fish Passage	1	Crossing improvement	24	Culverts/structures/fords replaced with open bottom arch culverts
3	Fish Passage	1	Crossing improvement	25	Culverts/structures/fords replaced with weir/baffle culverts
3	Fish Passage	1	Crossing improvement	26	Culverts/structures retrofitted with baffles or weirs (adding roughness into existing culverts)
3	Fish Passage	1	Crossing improvement	172	Culverts/structures/fords replaced with ford
3	Fish Passage	2	Non-crossing improvement	19	Culverts/structures installed to allow side channel access
3	Fish Passage	2	Non-crossing improvement	27	Dam removed
3	Fish Passage	2	Non-crossing improvement	28	Dam repaired
3	Fish Passage	2	Non-crossing improvement	33	Fish ladders improved
3	Fish Passage	2	Non-crossing improvement	34	Fish ladders installed
3	Fish Passage	2	Non-crossing improvement	70	Other diversions modified

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
3	Fish Passage	2	Non-crossing improvement	75	Push-up dams permanently removed
3	Fish Passage	2	Non-crossing improvement	117	Tidegate replaced or modified
3	Fish Passage	2	Non-crossing improvement	145	Tidegate removed and not replaced
3	Fish Passage	2	Non-crossing improvement	170	Engineered barrier bypass or fishway installed (other than fish ladders)
3	Fish Passage	2	Non-crossing improvement	180	Debris jam removed
3	Fish Passage	2	Non-crossing improvement	184	Weir barrier removed
3	Fish Passage	2	Non-crossing improvement	202	Diversion dams removed or modified
4	Road	37	Road grass seeding	39	Grass seeding and mulching
4	Road	39	Peak flow passage improvement	114	Stream crossings modified to reduce washout/diversion (pre-1999 form)
4	Road	39	Peak flow passage improvement	115	Structures modified by improving inlet condition
4	Road	39	Peak flow passage improvement	116	Structures replaced to meet 50+ year flow requirements
4	Road	39	Peak flow passage improvement	201	Stream crossings with log fills/culverts removed and not replaced
4	Road	40	Road closure	88	Road effectively closed to public use
4	Road	41	Road decommission	89	Road obliterated, decommissioned, or vacated
4	Road	42	Road reconstruction	94	Road upgraded/improved (Legacy Road Reconstruction)
4	Road	43	Road relocation	91	Road relocated outside RMA or stream banks

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
4	Road	43	Road relocation	92	Road relocated to reduce washout potential
4	Road	44	Road stabilization	30	Drainage diverted away from cracks (pre-1999 form)
4	Road	44	Road stabilization	56	Large landslides stabilized
4	Road	44	Road stabilization	90	Road pulled back and stabilized
4	Road	45	Road survey	93	Road surveyed
4	Road	46	Surface drainage improvement	17	Culverts added at locations other than above stream crossings
4	Road	46	Surface drainage improvement	31	Existing culverts with outlet erosion protection added
4	Road	46	Surface drainage improvement	71	Permanent cross-drains added above stream crossings
4	Road	46	Surface drainage improvement	86	Road down-cutting ditch rocking
4	Road	46	Surface drainage improvement	87	Road durable rocking or quality hard road rocking prior to haul
5	Upland	47	Conservation buffers	15	Conservation buffers
5	Upland	48	Upland erosion control	118	Other upland erosion control practice
5	Upland	48	Upland erosion control	171	Trail or campground improved
5	Upland	48	Upland erosion control	177	Grassed waterway established
5	Upland	48	Upland erosion control	179	Gully/grade stabilization
5	Upland	48	Upland erosion control	181	Mud management / Heavy use area protection

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
5	Upland	48	Upland erosion control	190	Windbreak installed
5	Upland	48	Upland erosion control	191	Filter strip establishment
5	Upland	49	Grazing management	40	Other grazing management practice
5	Upland	49	Grazing management	41	Grazing management: livestock exclusion
5	Upland	49	Grazing management	42	Grazing management: livestock removal
5	Upland	49	Grazing management	43	Grazing management: livestock rotation (pasture forage improvement through rotational livestock grazing)
5	Upland	50	Upland invasive plant control	123	Upland treated for non-native or noxious plant species
5	Upland	51	Irrigation system improvement	50	Other irrigation system improvement
5	Upland	51	Irrigation system improvement	51	Irrigation system improved: converted from dirt ditch to pipeline delivery
5	Upland	51	Irrigation system improvement	52	Irrigation system improved: converted from flood irrigation to gated pipe
5	Upland	51	Irrigation system improvement	53	Irrigation system improved: converted from flood to sprinkler irrigation
5	Upland	51	Irrigation system improvement	54	Irrigation system improved: tailwater collection system improved
5	Upland	51	Irrigation system improvement	55	Irrigation system improved: water measurement devices installed
5	Upland	53	Conservation tillage	60	No-till agriculture

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
5	Upland	53	Conservation tillage	124	Low-till agriculture
5	Upland	54	Nutrient/manure management	62	Livestock manure management
5	Upland	54	Nutrient/manure management	127	Other nutrient management (not manure management)
5	Upland	54	Nutrient/manure management	200	Constructed wetland for wastewater treatment or water quality improvement
5	Upland	55	Off-channel livestock or wildlife watering	64	Off-channel watering sites developed
5	Upland	57	Terracing	121	Upland terraces installed, constructed or rebuilt
5	Upland	58	Upland fencing	119	Upland fencing
5	Upland	59	Upland tree planting	125	Upland trees planted
5	Upland	60	Upland vegetation management	122	Upland treated for juniper by clearing, burning, thinning, or removal
5	Upland	60	Upland vegetation management	126	Other upland vegetation management
5	Upland	61	Upland vegetation planting	120	Upland shrubs or herbaceous vegetation planted/reseeded
5	Upland	62	Voluntary upland tree retention	134	Voluntary upland tree retention
5	Upland	63	Water/sediment control basins	136	Water/sediment control basins installed
5	Upland	67	Agriculture management	182	Precision agriculture management
5	Upland	67	Agriculture management	183	Integrated pest management
6	Wetland	26	Wetland vegetation planting	142	Wetland vegetation planted

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
6	Wetland	73	Voluntary wetland tree retention	144	Voluntary wetland tree retention
6	Wetland	74	Wetland creation	141	Wetland created
6	Wetland	74	Wetland creation	155	Non-wetland created into grass/herb meadow wetland
6	Wetland	74	Wetland creation	156	Non-wetland created into shrub or forest wetland
6	Wetland	74	Wetland creation	157	Non-wetland created into open water wetland (>6 ft. deep)
6	Wetland	74	Wetland creation	166	Non-wetland created into shrub/scrub wetland
6	Wetland	74	Wetland creation	167	Non-wetland created into forest wetland
6	Wetland	75	Wetland improvement	32	Existing wetland improved
6	Wetland	75	Wetland improvement	158	Existing grass/herb meadow wetland improved
6	Wetland	75	Wetland improvement	159	Existing shrub or forest wetland improved
6	Wetland	75	Wetland improvement	160	Existing open water wetland (>6 ft. deep) improved
6	Wetland	75	Wetland improvement	168	Existing shrub/scrub wetland improved
6	Wetland	75	Wetland improvement	169	Existing forest wetland improved
6	Wetland	76	Wetland restoration	74	Previously filled or drained wetland restored
6	Wetland	76	Wetland restoration	152	Previously filled or drained wetland returned to grass/herb meadow wetland
6	Wetland	76	Wetland restoration	153	Previously filled or drained wetland returned to shrub or forest wetland

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
6	Wetland	76	Wetland restoration	154	Previously filled or drained wetland returned to open water wetland (>6 ft. deep)
6	Wetland	76	Wetland restoration	164	Previously filled or drained wetland returned to shrub/scrub wetland
6	Wetland	76	Wetland restoration	165	Previously filled or drained wetland returned to forest wetland
6	Wetland	77	Wetland invasive plant control	143	Wetland treated for non-native or noxious plant species
7	Estuarine	19	Estuarine vegetation planting	163	Estuarine vegetation planted
7	Estuarine	84	Estuarine invasive plant control	162	Estuary treated for non-native or noxious plant species
7	Estuarine	85	Estuarine creation	192	Estuarine habitat created from non-estuarine/non-wetland area
7	Estuarine	86	Estuarine improvement	193	Existing estuary improved by channel modification
7	Estuarine	86	Estuarine improvement	197	Existing estuary improved by debris removal
7	Estuarine	86	Estuarine improvement	198	Existing estuary improved by reintroduction of native animal species
7	Estuarine	87	Estuarine restoration	194	Estuarine connection restored by dike or berm modification / removal
7	Estuarine	87	Estuarine restoration	195	Estuarine connection restored by removal of existing fill material (other than dike)
7	Estuarine	87	Estuarine restoration	196	Estuarine connection restored by estuarine culvert modification / removal

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
9	Urban	64	Sustainable stormwater management	11	Bioswales installed
9	Urban	64	Sustainable stormwater management	186	Ecoroof or roof garden installed
9	Urban	64	Sustainable stormwater management	187	Rain garden (vegetated infiltration basin) installed
9	Urban	64	Sustainable stormwater management	188	Rainwater harvesting
9	Urban	64	Sustainable stormwater management	189	Other stormwater/wastewater facility installed or modified (not bioswales, rain gardens, rainwater collection, or ecoroofs)
9	Urban	65	Catch basin cleaning	150	Catch basin cleaning
9	Urban	66	Detention facility	29	Detention facility
9	Urban	69	Pesticide use reduction	151	Pesticide use reduction
9	Urban	70	Storm & sanitary sewer separation	148	Storm & sanitary sewer separation
9	Urban	71	Street sweeping	149	Street sweeping
9	Urban	78	Off-channel flood storage	146	Off channel flood storage
9	Urban	79	Wet detention facility	147	Wet detention facility
10	Fish Screening	80	Fish screening	49	New fish screens installed on diversions (where no screen had existed previously)
10	Fish Screening	80	Fish screening	112	Existing fish screens replaced, repaired, or modified

Activity Type LUID	Activity Type	Activity LUID	Activity	Treatment LUID	Treatment
11	Instream Flow	81	Irrigation practice improvement	173	Other irrigation practice improvement (for instream flow)
11	Instream Flow	82	Water flow gauges	185	Water flow gauges installed

Appendix C: Public Comments

DEQ held a 46-day public comment period on the draft Nonpoint Source Management Program Plan. The public comment period was Thursday January 7, 2022 through 5pm on Monday March 14, 2022. DEQ received comments from 15 separate individuals or organizations (Table C-1). All comments received during the public comment period were reviewed by DEQ.

A summary of the changes made for the final plan include:

- Section 2.1.5. Added DEQ's water quality trading program description into the final plan.
- Section 2.2. Updated the program description for private and state forests and added description of the new rules and practices associated with the Private Forest Accord.
- Section 2.6. Added a description of the Private Forest Accord, corrected formatting issues, and clarified the description of the coastal nonpoint pollution control program boundary.
- Section 2.7. Updated the description of the Harmful Algal Blooms (HABs) strategy.
- Section 2.8. Updated the program descriptions for the toxic reduction strategy, Water Quality Pesticide Management Team, and Pesticides Stewardship Partnership to clarify how these programs work.
- Section 2.9. Updated environmental justice description to incorporate recent amendments from House Bill 4077.
- Section 2.10.2. Included riparian buffers and filter strips as eligible projects under the "Agriculture BMPs for Croplands" and "Hydromodification/Habitat Restoration" EPA needs categories identified for the Clean Water State Revolving Fund.
- Section 2.10.10. Clarified which Clean Water Act funds support DEQ nonpoint source programs as part of the performance partnership grant.
- Section 2.11.1. Clarified how the nonpoint source program works with federally recognized tribes with ceded lands in Oregon but not headquartered there as well as tribes that are not federally recognized.
- Section 2.12. Added new references to best management practices for marinas, shipyards, and private forestry. Added references to statewide actions related to implementation and reporting of best management practices.
- Chapter 3. Updated actions, milestones, or reporting metrics for agricultural water quality, private forestry, TMDLs, groundwater, Section 319, toxics reduction, clean water SRF, water quality assessment, and the nonpoint source program.
- Section 4.2.4. Updated the number of PSP watersheds and fixed figure references.
- Section 5.1. Updated and clarified the programmatic process for DEQ's 319 Nonpoint Source Implementation Grant Program.
- Addressed various spelling and grammar mistakes.

Table C-1: Commenters on the Draft Nonpoint Source Management Program Plan.

Commenter
Bert Krages
Clean Water Services
Deschutes River Alliance
Eastern Oregon Counties Association
Forest Waters Coalition
Galia Peleg
Harney County
Hayes Oyster Company
North Coast Communities for Watershed Protection
Northwest Environmental Advocates
Northwest Environmental Defense Center
Oregon Cattlemen's Association
Oregon Farm Bureau
Oregon Forest & Industries Council
Tamara DeRidder, TDR & Associates