



# Oregon Nonpoint Source Pollution Program Annual Report for 2023

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## Executive Summary

Oregon's watersheds saw many water quality restoration and protection efforts from nonpoint source impacts throughout 2023. These efforts were possible because of the funds from the Federal Clean Water Act Section 319(h). These funds were critical in Oregon's work to improve pesticide management and ensure the implementation of best management practices on forest, farm and rangelands across the state while providing valuable education and data to all people in Oregon.

The Oregon Nonpoint Source Pollution Program 2023 Annual Report documents activities and accomplishments of the state's Nonpoint Source Program. The Oregon Department of Environmental Quality is the lead agency in administering the Nonpoint Source Program; however, many program components are implemented by multiple state agencies, local governments, non-governmental organizations, and local community members. DEQ developed the report to meet the requirements of Section 319 of the Federal Clean Water Act and the [U.S. Environmental Protection Agency's 2014 Nonpoint Source Program and Grant Guidelines](#).

The annual report summarizes the nonpoint source activities implemented by the state during 2023 and highlights the progress Oregon is making toward meeting the challenges presented by nonpoint source impairments to water quality. Major water quality impairments include excessively warm stream temperatures, low dissolved oxygen, sedimentation, and shellfish toxins. Combined with data showing impairment to biological organisms these pollutants account for approximately 76% (2,819 out of 3,717) of known impaired waters listed in the state's most recent [2022 Integrated Report](#). The annual report also includes updates on milestones, implementation targets and annual reporting requirements identified in the [2022 Oregon Nonpoint Source Management Program Plan](#). Annual status updates ensure that Section 319 funding, technical support, and other resources continue to be used effectively to achieve the milestones identified in the 2022 Oregon Nonpoint Source Management Program Plan.

The 2022 Oregon Nonpoint Source Management Program Plan identified 51 nonpoint source program related actions or milestones scheduled to be ongoing or completed in 2023. Forty-four of the 51 actions, or 86%, were fully meeting scheduled milestones. Seven of the actions, or 14%, were not fully meeting scheduled milestones.

Actions not fully meeting scheduled milestones include:

- WQS-02: DEQ decided to expand the scope of the aquatics life toxics criteria update beyond the EPA recommendations for the 2021 Triennial Review. This allowed for the inclusion of acrolein, aluminum, cadmium, carbaryl, diazinon, and tributyltin to the project and extended the timeline. DEQ expects the proposed rule package to be published for public comment in early 2024 with EQC adoption in September 2024.
- DWP-05: The Groundwater and Surface Water Resource Guides were not updated in 2023 due to other priorities. This work will be completed in 2024.
- TRS-02: The Focus List chemicals tracking list completed in 2021, was pending peer review from DEQ's Laboratory QA Officer and Inorganic Section in 2022. As of now, this project has been suspended until DEQ is able to hire an agency Toxics Coordinator to help support and guide the project in the future. This position should be hired during the first half of 2024.

- NPS-04: The status and trends methodology required updates due to changes in the Integrated Report methodology and the structure of TMDL target data. In response to comments, the Integrated Report updated the standard for which assessment unit status would be assessed and displayed. Additionally, DEQ completed the development of a TMDL database that provides the locations of TMDL targets across the state mapped in both the National Hydrography Dataset and Integrated Report Assessment geospatial units. This database will be continually updated until all TMDL targets are included. These updates along with other priorities led to a delay in publishing the status and trends report for 2023 and the report will be published in 06/2024.

Significant activities and actions accomplished in 2023 include:

- WQS-01: The Environmental Quality Commission adopted amendments to the Fish and Aquatic Life Use designations for Oregon on November 16, 2023.
- WQA-02/WQA-03: For both fresh and marine waters, DEQ completed the Integrated Report call for data and draft updated assessment methodology for the 2024 Integrated Report in 2023. DEQ accepted comments on the draft methodology and will respond to comments during the development of the 2024 Integrated Report.
- DWP-06: DEQ and Oregon Health Authority reviewed 15 letters of interest for the Drinking Water Source Protection Fund. The agencies sent a project priority list of six recommended projects totaling \$267,000 to Business Oregon in June 2023 for contract management and fund disbursements. All of the projects recommended for funding were from water systems in Tier 1 disadvantaged communities.
- DWP-06: The Drinking Water Providers Partnership awarded a total of \$667,000 to support eight projects in drinking water source areas. As part of the 2023 review process, DEQ and EPA used the federal Climate and Economic Justice Screening Tool spatial layers to develop an online data viewer to evaluate potential benefits of proposed projects on underserved or disadvantaged communities. This analysis was used in the selection of projects, especially for EPA funding and resulted in several projects with close ties to environmental justice communities and Tribes.
- DWP-08: The DEQ Drinking Water Program launched a workshop series in 2023 on the coast to build community among drinking water and technical assistance providers. DEQ staff intentionally designed the workshops to be community-need driven and to provide opportunities for drinking water providers to share successes and challenges, access resources, and talk to partners about source water protection efforts including land conservation, resiliency, and non-point source reduction. DEQ held two workshops in October 2023 with 66 attendees representing 19 different water systems and 23 different technical assistance partner organizations.
- GW-06: There has been extensive activity in the Lower Umatilla Basin in 2023. DEQ participated in monthly committee meetings and numerous subcommittee meetings with sister agencies and committee members to improve the situation in the basin.
- GW-10/11/12/13: DEQ also completed groundwater sampling at 31 wells in the Lower Umatilla Basin Groundwater Management Area (GWMA), 26 wells in Northern Malheur County GWMA, 26 wells in the Southern Willamette Valley GWMA, and 80 wells in the southern Deschutes Area of Concern.
- CWSRF-01: The Oregon Clean Water State Revolving Fund funded one new nonpoint source project for the City of Port Orford North Hubbard Creek for \$826,015. This land acquisition project will protect the N. Fork Hubbard Creek watershed including drinking

water source for the City of Port Orford. This is the first CWSRF land acquisition project for a land purchase like this and the program coordinated closely with NPS staff on the project to address water quality benefits. While the program did not finalize many loans for projects, the program has eight additional NPS projects on our Intended Use Plan to receive funding within the next three years.

- AG-01: DEQ and ODA completed a revision to the Memorandum of Agreement on 01/09/2023.
- PF-03: The updated maps identifying perennial streams were made public by ODF on 07/01/2023.
- PF-05: Stream buffer requirements were expanded and went into effect for large private forestland owners on 07/01/2023 and the new Compliance Monitoring Program Committee and Adaptive Management Program Committee began meeting in 01/2023.
- NPS-06: The Freshwater Cyanobacteria Harmful Algal Bloom Strategy was completed in 10/2023.

In 2023, Oregon remained committed to its work to restore and protect hydrologic systems from nonpoint source pollution. DEQ continues this commitment by seeking innovation and cooperation where possible and supporting community-based methods to achieve program goals. To ensure the success of these efforts, DEQ continues to develop and maintain its essential relationships and engagement with tribal nations and local and state partners on water quality protection, restoration, implementation of TMDLs and monitoring of Oregon's waters. This collaboration allows the state to reach program goals by identifying emerging issues, understanding water quality status and trends and informing management activities that will restore water quality and beneficial uses to water bodies across Oregon.



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## Introduction

This Oregon Nonpoint Source Pollution Program 2023 Annual Report meets the requirements of Section 319 of the Federal Clean Water Act, now incorporated under Title 33 Section 1329(b) of the U.S. Code. This law requires each state to create a management program plan for controlling water quality pollution from nonpoint sources. The 2022 Oregon Nonpoint Source Management Plan (2022 Plan) covers a five-year timeframe from Jan, 1, 2022 to Dec. 31, 2026 and provides descriptions and primary activities of each nonpoint source program in detail. The 2022 Plan can be found on [DEQ's Nonpoint source web page](#).

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. The 2022 Plan provides focus and direction to the program through identification of current and planned goals, priorities, actions and timeframe milestones.

One of the requirements identified in the 2022 Plan is the development of this Nonpoint Source Annual Report. The annual report is submitted to the U.S. Environmental Protection Agency. Its purpose is to document the progress made toward the 2022 Plan's goals and objectives. This annual report identifies the activities and accomplishments Oregon has made over calendar year 2023. The summary includes the progress towards implementing the actions or milestones identified in the 2022 Oregon Nonpoint Source Management Program Plan.

Oregon Department of Environmental Quality is the lead agency in developing the report however some of the actions may have been implemented by multiple state agencies, local governments, non-governmental organizations, and local citizens.

Chapter 2 contains each program's goals and objectives as defined by the 2022 Plan, a summary of the actions and milestones scheduled to occur or be completed in 2023, and the status in meeting the milestones.

## Nonpoint Source activities and accomplishments in 2023

Actions in the 2022 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 goals and priorities outlined in the 2022 Plan address a broad spectrum of activities ranging from Section 319 grant administration, TMDL development and implementation, to working with partners in various land use sectors such as urban, forestry and agriculture. This Nonpoint Source Program Annual Report provides the basis for tracking annual progress under the 2022 Plan. The following sections describe the nonpoint source activities and reported outputs for program actions identified in the 2022 Plan as having reporting requirements for the year 2023.

### 1.1 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.

DEQ has identified one program milestone to be complete and reported in the 2022 NPS Annual Report. This milestone was not complete as of Jan 1, 2022.

**Table 1: Milestone status for WQS-01-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>              |
|---|---|----------------------------|
| <b>WQS-01.</b> Update the Aquatic Life Use Designations | <b>WQS-01-M1.</b> Updated Aquatic Life Use designations by December 31, 2022. | <b>Complete</b><br>11/2023 |

#### **WQS-01-M1 Description of Action/Milestone Status**

On November 16, 2023, the Oregon Environmental Quality Commission adopted amendments to the Fish and Aquatic Life Use designations for Oregon.

**WQS-01-R1.** Date the use designations were adopted by EQC. Reported in 2023 annual report.

November 16, 2023

**WQS-01-R2.** Summary description of the updates. Reported in 2023 annual report.

The Fish and Aquatic Life Use designations are beneficial use designations that determine where and when the different criteria for the temperature and dissolved oxygen standards apply to protect sensitive fish and other species in Oregon's waters. These amendments are **not applicable for Clean Water Act purposes** until approved by the U.S. EPA. This process will

include Endangered Species Act consultation with the federal fisheries services before it is completed. It is likely the federal process could take up to a year or more.

Until the new rules are federally approved, the previously approved “fish use” and “spawning use” maps for temperature adopted in 2003 and the policies for implementing the dissolved oxygen standards remain applicable.

**Table 2: Milestone status for WQS-02-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>   |
|--|---|---|
| <b>WQS-02.</b> Review and revise aquatic life criteria for toxic pollutants. | <b>WQS-02-M1.</b> Updated Aquatic Life Criteria by December 31, 2023. | <b>Not Yet Complete</b><br>Expected completion date:<br>09/2024 |

**WQS-02-M1 Description of Action/Milestone Status**

DEQ expanded the scope of the initial aquatic life toxics criteria update that was prioritized during the 2021 Triennial Review to evaluate all of Oregon’s aquatic life criteria compared to EPA recommendations. That decision extended the timeline of this project, and as a result DEQ is updating or adding aquatic life criteria for acrolein, aluminum, cadmium, carbaryl, diazinon, and tributyltin in Oregon water quality standards (OAR 340-041-8033) based on EPA’s most recent recommendations. These new and updated numeric criteria will ensure the protection of Oregon fish and aquatic life and will not be effective for Clean Water Act programs until EQC adoption and subsequent EPA approval. The next steps are to publish the proposed rule package for public comment in early 2024.

## 1.2 Monitoring and assessment

**Program Goal:** Assessment of Oregon’s surface waters. Oregon Nonpoint Source Management Program Plan 60

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

DEQ has identified one program milestone to be completed and reported on in the 2023 NPS Annual Report. This milestone was completed in April 2023 for freshwater and August 2023 for marine waters.

**Table 3: Milestone status for WQA-02-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>   |
|---|--|---|
| <b>WQA-02.</b> Complete a call for data for the 2024 Integrated Report. | <b>WQA-02-M1.</b> Completed call for data by April 30, 2023. | <b>Complete:</b><br>04/2023 for freshwater<br>08/2023 for marine waters |

**WQA-02-M1 Description of Action/Milestone Status**

DEQ accepts data and information from the public that may be used to assess the condition of Oregon's water bodies.

**WQA-02-R1.** The date the call for data closed. Reported in 2023 annual report.

DEQ posted its 2024 Integrated Report statewide call for data for inland and estuarine waters from Feb. 6, 2023, through April 7, 2023, and for marine waters from June 15, 2023, through Aug. 14, 2023.

**Table 4: Milestone status for WQA-03-M1**

| Actions  | Milestones  | Status   |
|--|---|--|
| <p><b>WQA-03.</b> Prepare the 2024 Integrated Report Assessment Methodology.</p> | <p><b>WQA-03-M1.</b> Release the draft 2024 Integrated Report Assessment Methodology for public comment by June 30, 2023.</p> | <p><b>Complete:</b> 01/2023 for freshwater and 05/2023 for marine waters</p> |

**WQA-03-M1 Description of Action/Milestone Status**

Before each reporting cycle, DEQ may update the existing assessment methodology and develop new methodologies. Oregon statute requires DEQ to publish the methodology before drafting the Integrated Report.

**WQA-03-R1.** The date the draft 2024 Integrated Report Assessment Methodology is released for public comment. Reported in 2023 annual report.

DEQ's Water Quality Assessment Program held two public processes for the Draft 2024 Assessment Methodology. The inland and estuaries draft Assessment Methodologies for Oregon's 2024 Integrated Report were posted for public comment Jan. 5, 2023, and accepted comments on the methodologies through Feb. 21, 2023. The draft 2024 Ocean Acidification and Hypoxia Assessment Methodologies for marine water were posted separately on May 31, 2023, and comments accepted through July 7, 2023.

## 1.3 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.

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

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

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

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

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

**Table 5: Milestone status for TMDL-01-M1**

| Actions  | Milestones  | Status  |
|--|---|---|
| <b>TMDL-01.</b> DEQ issues Total Maximum Daily Loads to EPA. | <b>TMDL-01-M1.</b> DEQ has issued to EPA TMDLs addressing a minimum of 483 water quality limited segments by December 31, 2024. | <b>Not Yet Complete</b><br>Expected completion date: 12/31/2024 |

**TMDL-01-M1 Description of action/milestone status**

**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.

On November 16, 2023 DEQ submitted and EPA approved the Upper Yaquina River Watershed TMDLs addressing bacteria and dissolved oxygen listings. The TMDL determined pollutants causing the dissolved oxygen impairments are total phosphorus and solar radiation. Excessive E. coli pathogens are the cause of bacteria impairment. The Upper Yaquina Watershed TMDLs addressed 5 water quality listings and applied TMDL allocations and protective measures to a total of 18 potential that were unassessed or determined to be attaining.

DEQ has a number of TMDL projects in development including TMDLs in the Coquille Subbasin addressing listings for dissolved oxygen, bacteria, pH, and temperature; TMDLs in the Powder, Burnt, and Brownlee Subbasins addressing bacteria, and seven unique temperature TMDL projects applicable in the Lower Columbia-Sandy Subbasin, the Willamette Subbasins, mainstem Willamette River and major tributaries, Umpqua River Basin, Rogue River Basin, John Day Basin, and for the Snake River. The draft bacteria TMDLs in the Powder, Burnt, and Brownlee Subbasins and draft temperature TMDLs for the Lower Columbia-Sandy Subbasin and Willamette Subbasins were posted for public comment in 2023 and early 2024. Those latter TMDLs are expected to be submitted to EPA in 2024 as scheduled.

**Error! Reference source not found.** below summarizes the TMDLs identified as a high priority in the 2022 Integrated Report that are currently in development and the total number of impaired category 5 assessment units needing TMDLs.

**Table 6: Summary of high priority TMDLs in development**

| TMDL Project | Parameters Addressed | Count of Impaired Category 5 Assessment Units Addressed | Count of other Assessment Units Addressed |
|--------------|----------------------|---|---|
|--------------|----------------------|---|---|

|                                       |  |     |     |
|---------------------------------------|--|-----|-----|
| Coquille Subbasin                     | Dissolved Oxygen, E. coli, Fecal Coliform, pH, Temperature | 87  | 571 |
| Lower Columbia-Sandy Subbasin         | Temperature  | 36  | 22  |
| Powder, Burnt, and Brownlee Subbasins | E. coli  | 6   | 205 |
| Willamette Subbasins                  | Temperature  | 293 | 554 |

**TMDL-01-R2.** Number of water quality limited segments addressed by TMDLs submitted to EPA during the reporting period.

Five.

The Upper Yaquina Watershed TMDLs addressed four water quality impairments identified on the 2022 Integrated Report. One listing for E. coli and three listings for dissolved oxygen. In addition, one unassessed listing for dissolved oxygen was confirmed to be impaired by the TMDL analysis. Two assessment units listed for fecal coliform were included in the count of TMDLs to be addressed by the Upper Yaquina under the action TMDL-10 but will not be directly included in the TMDL count. As described in the Upper Yaquina TMDL Technical Support Document (<https://www.oregon.gov/deq/wq/Documents/UpperYaquinaBacDOW-appendices.pdf>), E. coli rather than fecal coliform is the applicable criterion for the designated freshwater beneficial uses. Since sufficient E. coli data are available for assessment in these freshwater assessment units, the fecal coliform listings are proposed to be removed in the 2024 Integrated Report cycle.

**TMDL-01-R3.** Cumulative number of water quality limited segments addressed by TMDLs submitted to EPA between January 1, 2022 and December 31, 2026.

Five water quality limited segments were addressed by TMDLs.

**Table 7: Milestone status for TMDL-02-M1**

| Actions  | Milestones   | Status   |
|--|--|--|
| <b>TMDL-02.</b> DEQ issues a WQMPs for EPA's temperature Total Maximum Daily Load (TMDL) on the Columbia and Lower Snake Rivers. | <b>TMDL-02-M1.</b> DEQ has issued the Columbia River WQMP addressing 27 temperature water quality limited segments by December 31, 2023. | <b>Not Yet Complete</b><br>Estimated completion date:<br>12/2025 |

**TMDL-02-M1 Description of Action/Milestone Status**

DEQ is in the process of developing the WQMP. Current efforts are focused on discussion and coordination with Washington Ecology to develop robust opportunities for engagement with tribal governments and interested parties throughout the region.

**TMDL-02-R1.** Date the Columbia River WQMP was issued by DEQ. Reported in 2023 annual report.

The Columbia River WQMP is estimated to be issued by December 2025.

**Table 8: Milestone status for TMDL-03-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>           |
|---|---|-------------------------|
| <b>TMDL-03.</b> DEQ receives, reviews, and takes action on TMDL implementation plans. | <b>TMDL-03-M1.</b> DEQ takes action on 100% of TMDL implementation plans within 12 months of receipt. | <b>Not Yet Complete</b> |

**TMDL-03-M1 Description of Action/Milestone Status**

**TMDL-03-R1.** Percent of TMDL implementation plans submitted during the previous calendar year that DEQ has taken action on. Reported annually.

84%

**TMDL-03-R2.** Number of DMAs or responsible persons required to submit a new or revised TMDL implementation plan. Reported annually.

251

**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.

150

**TMDL-03-R4.** Number of TMDL implementation plans that DEQ has taken action on during the previous calendar year. Reported annually.

27

**Table 9: Milestone Status for TMDL-04-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>           |
|---|---|-------------------------|
| <b>TMDL-04.</b> DEQ has reviewed for sufficiency, commented on, or taken other appropriate action on submitted TMDL implementation plan annual reports. | <b>TMDL-04-M1.</b> DEQ has taken action on 100% of implementation plan annual reports that were submitted to DEQ during the previous calendar year. | <b>Not Yet Complete</b> |

**TMDL-04-M1 Description of Action/Milestone Status**

**TMDL-04-R1.** Percent of TMDL implementation plan annual reports submitted during the previous calendar year that DEQ has taken action on. Reported annually.

68%

**TMDL-04-R2.** Number of DMAs or responsible persons that are required to submit a TMDL implementation plan annual report to DEQ. Reported annually.



224

**TMDL-04-R3.** Number of annual reports submitted to DEQ before January 1 of the previous calendar year. Reported annually.

149

**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,

102

**Table 10: Milestone status for TMDL-05-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>           |
|--|---|-------------------------|
| <b>TMDL-05.</b> 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). | <b>TMDL-05-M1.</b> 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. | <b>Not Yet Complete</b> |

### **TMDL-05-M1 Description of Action/Milestone Status**

**TMDL-05-R1.** Percent of DMAs or responsible persons that DEQ has notified or implemented any appropriate actions. Reported annually.

39%

**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.

28 DMAs or responsible persons who have not submitted a required implementation plan or annual report have been notified or taken action on by DEQ.

**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.

72 DMAs or responsible persons have not submitted an implementation plan or annual report that is required by the TMDL WQMP.

**Table 11: Milestone status for TMDL-06-M1**

| <b>Actions</b>   | <b>Milestones</b>                                       | <b>Status</b>           |
|--|---|-------------------------|
| <b>TMDL-06.</b> Riparian areas are restored or enhanced. | <b>TMDL-06-M1.</b> Over a five-year period 200 riparian | <b>Not Yet Complete</b> |

|  |   |                             |
|--|---|-----------------------------|
|  | 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. | Expected Completion 12/2026 |
|--|---|-----------------------------|

**TMDL-06-M1 Description of Action/Milestone Status**

**TMDL-06-R1.** The total length of riparian stream miles and number of acres with completed tree planting restoration projects completed in HUC8 subbasins with approved TMDLs as reported in OWRI and NRCS for the most recent annual period when data is available. Reported annually.

At time of publication, the Oregon Watershed Restoration Inventory (OWRI) contains completed restoration project information through the end of 2022. Projects are reported when they have been completed or following a completed project phase. In calendar year 2022 there were 22.8 stream miles and 455.13 acres of tree planting restoration projects completed in HUC8 subbasins with approved TMDLs that require solar radiation load reductions. NRCS data was not available and thus not included.

**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 as reported in OWRI and NRCS between January 1, 2022 and December 31, 2026. Reported annually.

In calendar year 2022 there were 22.8 stream miles and 455.13 acres of tree planting restoration projects completed in HUC8 subbasins with approved TMDLs that require solar radiation load reductions. Completed tree planting restoration projects for calendar year 2023 are not yet available in the Oregon Watershed Restoration Inventory (OWRI). NRCS data was not available and thus not included.

**Table 12: Milestone status for TMDL-07-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>               |
|--|---|-----------------------------|
| <b>TMDL-07.</b> Other appropriate management strategies are implemented to reduce pollutant loading. | <b>TMDL-07-M1.</b> Annually DEQ quantifies the count or amount of management strategies that have been completed within watersheds where TMDLs have been developed. | <b>Complete:</b><br>12/2023 |

**TMDL-07-M1 Description of Action/Milestone Status**

**TMDL-07-R1.** The annual count or amount of management strategies implemented for each HUC8 subbasins with approved TMDLs. Reported annually.

See Appendix A of this report.

**Table 13: Milestone status for TMDL-08-M1**

| <b>Actions</b>                                 | <b>Milestones</b>  | <b>Status</b>  |
|--|--|--|
| <b>TMDL-08.</b> Develop TMDL monitoring plans. | <b>TMDL-08-M1.</b> A minimum of five TMDL monitoring plans developed by December 31, 2026. | <b>Not Yet Complete:</b><br>Expected completion date 12/2026 |

**TMDL-08-M1 Description of Action/Milestone Status**

**TMDL-08-R1.** Number and identification of TMDL monitoring plans approved by the Healthy Stream Partnership Implementation Group and the Monitoring and Assessment Governance Committee in the previous calendar year. Reported annually.

DEQ developed two TMDL monitoring plans in 2023. The two monitoring plans were approved for implementation by DEQ’s monitoring and assessment committee. The committee is a group of DEQ water quality managers tasked with decisions regarding the prioritization and allocation of DEQ laboratory and water quality program resources, particularly as it relates to water quality monitoring.

**Monitoring Harmful Algal Blooms and water quality impairments in the Upper and Little Deschutes Subbasins for TMDL development.** This monitoring project continues data collection for developing chlorophyll a, temperature, dissolved oxygen, pH, and harmful algal blooms TMDLs in the Upper and Little Deschutes subbasins. The monitoring is expected to occur April-Oct 2024-2027 at four lakes: Odell, Crane-Prairie, Lava, and Crescent.

**Upper Klamath and Lost Subbasins Temperature TMDL Status and Trend Monitoring** This monitoring project is an extension to a temperature monitoring project approved for implementation in 2019. The project approved in 2019 was limited to two years of monitoring. This project is focused on temperature monitoring to support trending and will span the summer months of 2024-2030. The temperature monitoring supports the TMDL implementation monitoring strategy developed as part of the TMDL process.

**Table 14: Milestone status for TMDL-09-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>   |
|--|--|---|
| <b>TMDL-09.</b> Implementation of TMDL monitoring plans. | <b>TMDL-09-M1.</b> A minimum of five TMDL monitoring plans implemented by December 31, 2026. | <b>Not Yet Complete</b><br>Expected Completion Date: 12/31/2026 |

**TMDL-09-M1 Description of Action/Milestone Status**

DEQ conducted monitoring projects in 2023 to help track water quality in areas with completed TMDL’s and to collect data for development of future TMDLs in areas without completed TMDL’s. One short term monitoring project was completed in 2023 in the Mid Coast subbasin’s Eckman Lake. The work is described in the Eckman Lake Water Column Characterization

Sampling Analysis Plan (SAP). The remaining monitoring plans were all part of multiple year projects. These monitoring plans included the following SAPs:

- North Coast TMDL’s Temperature Effectiveness Monitoring
- Upper Deschutes Seasonal Turbidity Characterization
- Cascade Lakes 2021 CyanoHABs Prediction Tool Development and TMDL Data Collection
- Upper Klamath and Lost Subbasins Temperature TMDL Status and Trend Monitoring
- Sycan River Restoration Implementation Nutrient Effectiveness Monitoring

A similar multiyear project operates under a separate QAPP for status and trend assessment of TMDL parameters associated with Conservation Effectiveness Partnership projects in the upper Tualatin River watershed. The name of the QAPP is “Dairy and McKay Creek CEP Monitoring”.

**TMDL-09-R1.** Name and number of TMDL monitoring plans implemented. Reported annually.

Seven monitoring plans were implemented throughout 2023. The names of the monitoring plans are:

- Eckman Lake Water Column Characterization
- North Coast TMDL’s Temperature Effectiveness Monitoring
- Dairy and McKay Creek CEP Monitoring QAPP
- Upper Deschutes Seasonal Turbidity Characterization
- Cascade Lakes 2021 CyanoHABs Prediction Tool Development and TMDL Data Collection
- Upper Klamath and Lost Subbasins Temperature TMDL Status and Trend Monitoring
- Sycan River Restoration Implementation Nutrient Effectiveness Monitoring

**Table 15: Milestone status for TMDL-10-M1**

| Actions  | Milestones  | Status   |
|--|---|--|
| <p><b>TMDL-10.</b> 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.</p> | <p><b>TMDL-10-M1.</b> 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, Willamette Basin, Walla Walla Subbasin</p> | <p><b>Not Yet Complete:</b><br/>Expected completion date 12/2026</p> |

**TMDL-10-M1 Description of Action/Milestone Status**

Completion of Bear Creek and Rogue River Basin report in early 2025. Walla Walla Report in progress and completed by end of 2026.

**TMDL-10-R1.** Identification of five-year TMDL implementation review status. Reported annually.

In 2023, DEQ worked on a questionnaire that will be sent to Bear Creek Watershed and Rogue River Basin DMAs in November 2024. Results from the questionnaire, in addition to other TMDL implementation information, will help inform the five-year TMDL implementation report and support revision of DMA's five-year TMDL Implementation Plans.

In the Walla Walla Subbasin, DEQ focused on staying informed and engaging with BLM on Management Plan updates for the South Fork Walla Walla Area of Critical Environmental Concern NEPA process. The outcome of this update is relevant to TMDL implementation and the five-year review. Specific outreach to other Walla Walla Subbasin DMAs regarding implementation strategies was planned to occur in 2023 but now estimated to be completed by December 2024. The final report is estimated to be completed on schedule by end of 2026.

**TMDL-10-R2.** Narrative overview of report findings. Reported annually.

Five-year TMDL implementation report findings will be summarized when the reports are completed in 2025.

## 1.4 Drinking 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.

**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.

**Objective 11:** Community water systems implement source water protection actions.

**Table 16: Milestone status for DWP-01-M1**

| Actions | Milestones | Status           |
|---------|------------|------------------|
|         |            | Not Yet Complete |

|   |  |  |
|---|--|--|
| <p><b>DWP-01.</b> DEQ will assist Oregon Health Authority in completing “Updated Source Water Assessments” for Community and Non-transient Non-community water systems using groundwater.</p> | <p><b>DWP-01-M1.</b> 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.</p> | <p>Expected completion date: 12/2026</p> |
|---|--|--|

**DWP-01-M1 Description of Action/Milestone Status**

This is an ongoing task to assist OHA by maintaining/updating tools that allow OHA to produce Source Water Assessment Update reports. The main purpose of the revised reports is to update information on risks to the water source based on regulatory database changes, aerial photograph review, information from the water system contact, or land ownership/use maps.

**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.

No new maps or data was provided because OHA was able to complete the work in house and did not request maps or data. OHA completed 41 SWA updates for Groundwater Community and Non-Transient Non-Community systems between 07/01/2022 and 6/30/2023 (our annual reporting cycle to EPA). DEQ supported OHA by maintaining updated GIS layers for drinking water sources and maintaining potential contaminant source identification and editing tool.

**DWP-01-R2.** Total number of completed Updated Source Water Assessments in Oregon. Reported annually.

OHA and DEQ report annually to EPA on this measure for the period of July 1-June 30. As of June 30, 2023, 712 Source Water Assessment updates have been completed representing approximately 75% of the 954 Community and Non-Transient Non-Community groundwater systems that are to receive an update.

**Table 17: Milestone status for DWP-02-M1**

| Actions | Milestones | Status |
|---------|------------|--------|
|---------|------------|--------|

|  |   |   |
|--|---|---|
| <p><b>DWP-02.</b> 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).</p> | <p><b>DWP-02-M1.</b> Complete updated reports for 100% of Community and Non-transient Non-community surface water systems by December 31, 2026.</p> | <p><b>Not Yet Complete</b><br/>Expected completion date: 12/31/2026</p> |
|--|---|---|

**DWP-02-M1 Description of Action/Milestone Status**

This is an ongoing task to complete Source Water Assessments for new or revised drinking water sources that use surface water sources. The main purpose of the reports is to provide a delineation of the source’s watershed and provide updated information on risks to the water source based on erosion and landslide potential in the watershed, regulatory database changes, aerial photograph review, information from the water system contact, or land ownership/use maps.

**DWP-02-R1.** Number of completed Updated Source Water Assessments for surface water systems during the reporting period. Reported annually.

In 2023, one new Source Water Assessment was completed for Seal Rock Water District. Based on review of new or revised water system sources, there are nine new public water systems using surface water sources that need a Source Water Assessment. There are six existing water systems with new or revised drinking water sources where an update is needed. These Source Water Assessments will be prioritized for completion in 2024 and 2025.

**DWP-02-R2.** Total number of surface water systems requiring an Updated Source Water Assessment. Reported annually. There are 177 Community and Non-transient Non-community surface water systems that require an Updated Source Water Assessment. Updated SWAs have been completed for 169 of these water systems.

**Table 18: Milestone status for DWP-03-M1**

| Actions  | Milestones   | Status                             |
|--|--|------------------------------------|
| <p><b>DWP-03.</b> DEQ will provide additional information and updates to both groundwater and surface water Public Water Systems upon request.</p> | <p><b>DWP-03-M1.</b> Ground water and surface water Public Water Systems requests completed.</p> | <p><b>Complete</b><br/>12/2023</p> |

**DWP-03-M1 Description of Action/Milestone Status**

This is an ongoing task and is completed at the water systems request. The total number of water systems provided additional assessment information is reported each year.

**DWP-03-R1.** Number of public water systems provided additional assessment information. Reported annually.

In 2023, DEQ provided additional assessment information to 24 public water systems including the following:

- The cities of Reedsport, Condon, Coos Bay North Bend, Depoe Bay, Lafayette, Lincoln City, Port Orford, and Sheridan.
- The following water districts: Corbett, Neahkahnne, Rhododendron, Ice Fountain, Crooked River Ranch, and Tooley.
- A number of manufactured home park communities: Orient Drive Mobile Estates, Golf Mobile City, Pinewood Mobile Manor, Mobile Village Inc, Belle Passi Estates, Tamarack Mobile Home Park and River Village MHP.
- Several schools or worksites: Camp Rilea, Springwater Academy, Oregon Youth Authority MacLaren.

**Table 19: Milestone status for DWP-04-M1**

| <b>Actions</b>   | <b>Milestones</b>                                      | <b>Status</b>              |
|--|--|----------------------------|
| <b>DWP-04.</b> 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. | <b>DWP-04-M1.</b> Completion of annual website review. | <b>Complete</b><br>12/2023 |

**DWP-04-M1 Description of Action/Milestone Status**

This is an ongoing task completed at as needed and at various times throughout each year. Tasks completed for 2023 are detailed below.

**DWP-04-R1.** Narrative description of updated website content. Reported annually.

Tasks completed in 2023:

- Conducted comprehensive QC and update for broken links and outdated public facing documents
- Established new Source Water Protection Workshops page and added materials for the October 3-4, 2023 Coastal Workshops on increasing resiliency with land conservation and acquisition
- Updated Funding for Public Water Systems documents and webpage.
- Maintained updated program contact information.

**Table 20: Milestone status for DWP-05-M1**

| <b>Actions</b> | <b>Milestones</b> | <b>Status</b> |
|----------------|-------------------|---------------|
|----------------|-------------------|---------------|



|  |   |  |
|--|---|--|
| <p><b>DWP-05.</b> 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.</p> | <p><b>DWP-05-M1.</b> Completion of Resource Guide update every two years by June 30 2022, 2024, and 2026.</p> | <p><b>Not Yet Complete</b><br/>Expected completion date: 06/2024</p> |
|--|---|--|

**DWP-05-M1 Description of Action/Milestone Status**

Due to other priorities and the planned land conservation workshops, the Resource Guides were not updated in 2023. This work will be completed in 2024. Update will include adding information on Land Conservation, information for small groundwater systems, and resources for forestry and agricultural land uses as well as checking and updating all resource links.

**DWP-05-R1:** Date Resource Guide was updated. Reported in 2022, 2024, and 2026 annual reports.

Due to other priorities, the Resource Guides were not updated in 2023. This work will be completed by June 30, 2024.

**DWP-05- R2:** Narrative description of updates completed. Reported in 2022, 2024, and 2026 annual reports.

Due to other priorities, the Resource Guides were not updated in 2023. This work will be completed by June 30, 2024.

**Table 21: Milestone status for DWP-06-M1, DWP-06-M2, and DWP-06-M3**

| Actions | Milestones | Status |
|---------|------------|--------|
|---------|------------|--------|

|  |  |                            |
|--|--|----------------------------|
| <b>DWP-06.</b> 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). | <b>DWP-06-M1.</b> Annual participation in project development and selection for DW SPF, DWPP, and 319 NPS grants.  | <b>Complete</b><br>12/2023 |
|  | <b>DWP-06-M2.</b> Annual coordination with NRCS to identify potential planning and implementation projects.  | <b>Complete</b><br>12/2023 |
|  | <b>DWP-06-M3.</b> Review and support eligible nonpoint source activity funding applications for Clean Water State Revolving Fund (CWSRF) source water protection projects. | <b>Complete</b><br>12/2023 |

**DWP-06-M1 Description of Action/Milestone Status**

This is an ongoing task completed each year. Tasks completed for 2023 are detailed below.

**DWP-06-R1.** Date of participation and narrative description of projects selected for funding. Reported annually.

Drinking Water Source Protection Fund (January – July 2023) – funded by OHA through DWSRF local assistance set-asides: DEQ conducts outreach and provides technical assistance to potential grant applicants. Applications for 2023 were due March 2023. OHA and DEQ reviewed fifteen Letters of Interest for the fund. This year, the projects were divided into two tiers. Tier 1 for projects eligible for funding submitted by water systems from disadvantaged communities as defined by OHA-DWS (based on median-household income) and Tier 2 for all other projects. Funding was prioritized first by Tier, starting with Tier 1, then by overall project score within each Tier. A project priority list of six recommended projects with funding requests totaling \$267,000 was sent to Business Oregon in June 2023 for contract management and fund disbursements. All of the projects recommended for funding were from Tier 1 disadvantaged communities. Projects funded address planning for drinking water protection, forest management planning for watershed acquisition and watershed management, and stormwater treatment retrofit/upgrade.

Drinking Water Providers Partnership (January 2023): This is a collaboration of USFS, BLM, EPA, DEQ, Washington DOH and several non-profits that coordinate this competitive grant solicitation for habitat conservation and restoration projects in drinking water source areas. In January 2023 the DWPP completed project selection for their eighth year as a regional partnership. A total of \$667,000 was awarded in Oregon by the federal partners supporting eight projects in drinking water source areas for stormwater best management practices, invasive plant removals, improving stream structure with wood placement, riparian restoration, and reducing sediment from forest roads. The funded projects will benefit the drinking water

and aquatic habitat in watersheds providing source water for several small communities and larger cities. As part of the review process this year, DEQ and EPA used the federal Climate and Economic Justice Screening Tool GIS layers to develop an online data viewer to evaluate potential benefits of proposed projects on underserved or disadvantaged communities. This analysis was used in the selection of projects, especially for EPA funding and resulted in several projects with close ties to EJ communities and tribes. Two projects were referred to DWSPF but were not recommended for funding due to being Tier 2 (not disadvantaged communities).

NPS 319 (January – December 2023): DEQ continued administration of Partnership for Umpqua Rivers turbidity monitoring and assessment 319 grant in the Umpqua Basin above drinking water intakes.

**DWP-06-R2** Date of participation and narrative description of projects supported for funding. Reported annually.

NRCS NWQI (January – December 2023): DEQ coordinated with NRCS regarding FY24 NWQI grants and conducted outreach to several partners with completed or nearly completed watershed plans to gauge interest in implementation planning grants. Based on the outreach, there was not enough interest or momentum to select new watersheds for the FY23 grant cycle. In addition, DEQ provided a letter of support for withdrawing the implementation phase for the Umpqua Looking Glass/Olalla Watershed due to the types of producers identified (grasslands and forest) and the contribution this tributary to the Umpqua provides. NRCS will be evaluating other areas of the hope this information can be used for other risk reduction and conservation activities in the Lookingglass Olalla watershed or otherwise in the South Umpqua basin for risk reduction and conservation activities.

For ongoing watershed assessments, DEQ provides data and technical assistance as local partners complete their assessments and outreach strategies to address agricultural-related impacts to source water quality. DEQ has provided technical assistance to Oregon conservation partners in these areas: Cities of Canby and Molalla – Molalla River Drinking Water Project; City of Myrtle Point – North Fork Coquille River; Cities of Winston and Dillard, South Umpqua River, Lookingglass Creek Sub-Watershed SWPA; Clackamas River Water Providers (multiple PWSs) - Clackamas River watershed; City of Monroe - Long Tom River; City of Medford and other water providers in the Rogue basin; and Cities of Albany, Jefferson, Lebanon, Salem, and Stayton - Santiam River.

Following completion of the Watershed Assessment, SWPAs will then be eligible to receive federal Farm Bill funding to implement the measures identified in their plans specific to agricultural impacts. Currently, the Long Tom Watershed project serving City of Monroe's drinking water intake and the Baker City/Sumpter Wildfire Mitigation projects are in the implementation phase and receiving NRCS funding.

DEQ also collaborated with NRCS leadership to identify and map priority areas for NRCS focus on Source Water Protection. Oregon NRCS is exploring how they can encourage additional conservation measures in these Source Water Protection priority areas

**DWP-06-R3.** Date of review and narrative summary of funding recommendations. Reported annually.

January – December 2023: In 2023, the drinking water protection program has had several opportunities for collaboration with the Clean Water SRF program. In June 2023, the Governor Kotek signed a legislative House Bill 3195 which expands Oregon Clean Water State Revolving Fund eligibility to include water districts and focuses eligibility on nonpoint source pollution sources.

Also in 2023, the DWP program has been supporting the City of Port Orford as they applied for Clean Water State Revolving Fund (CWSRF) to purchase property in their drinking water source area. Support included assistance with project eligibility for application, providing additional susceptibility analysis of properties, review of Forest Management Plan and Invasives Management Plan, and coordination with DEQ’s CWSRF project officers. Port Orford’s application was added to the CWSRF 2024 IUP and loan signed on December 26, 2023, in the amount of \$826,015. Port Orford is eligible for principal forgiveness up to fifty percent (50%) of the loan based on affordability criteria and will use this funding to purchase a parcel in the drinking water source area of the watershed. We also assisted Port Orford with a CWSRF planning loan application submitted in December 2023 for a Sedimentation Reduction Plan.

**Table 22: Milestone status for DWP-08-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>              |
|---|--|----------------------------|
| <b>DWP-08.</b> Conduct outreach to PWSs interested in local land acquisition and management strategies. | <b>DWP-08-M1.</b> 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. | <b>Complete</b><br>12/2023 |

**DWP-08-M1 Description of Action/Milestone Status**

This task is complete for the 2022-2026 Oregon Nonpoint Source Management Program Plan. However, we consider this activity a high priority for drinking water protection especially with the significant ongoing BIL and IFA funding sources. Additional outreach will occur in subsequent years.

**DWP-08-R1.** Number of water systems contacted and number of water systems pursuing land acquisition or conservation. Reported annually.

October 2023: The DEQ Drinking Water Program invested considerable time and effort in 2023 launching a workshop series on the coast to build community among drinking water and technical assistance providers. Workshops intentionally designed to be community-need driven and to provide opportunities for drinking water providers to share successes and challenges, access resources, and talk to partners about source water protection efforts including land conservation, resiliency, and non-point source reduction. Two workshops were held in October 2023 and there were 66 attendees representing 19 different water systems and 23 different technical assistance partner organizations. Many of these water systems are evaluating or pursuing land acquisition or conservation.

**Table 23: Milestone status for DWP-09-M1, DWP-09-M2, and DWP-09-M3.**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>   |
|--|---|---|
| <b>DWP-09.</b> 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. | <b>DWP-09-M1.</b> Oregon achieves substantial implementation for 22 community water systems per year for a total of 110 by Dec. 31, 2026.                             | <b>Not Yet Complete</b><br>Expected completion date: 12/31/2026 |
|  | <b>DWP-09-M2.</b> Oregon achieves EPA’s goal of 49 percent by number of community water systems with substantial implementation by Dec. 31, 2026.                     | <b>Not Yet Complete</b><br>Expected completion date: 12/31/2026 |
|  | <b>DWP-09-M3.</b> Oregon achieves EPA’s goal of 59 percent of Oregon’s population served by community water systems with substantial implementation by Dec. 31, 2026. | <b>Complete</b><br>06/30/2022                                   |

**DWP-09-M1 Description of Action/Milestone Status**

This is an ongoing task completed each year however, many of Oregon’s larger and more capable water systems have already achieved substantial implementation. So OHA and DEQ are increasing outreach efforts to smaller water systems that have not achieved substantial implementation. These are often disadvantaged communities with limited resources which require additional technical assistance to implement protection strategies. OHA and DEQ are focusing outreach efforts to water systems that have not achieved substantial implementation. A priority list of water systems has been identified for conducting additional follow-up contacts which will provide staff with opportunities to discuss source water assessment report content, results, and offer additional source water protection assistance.

**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.

A summary of OHA/DEQ Drinking Water Protection Program implementation counts were submitted to EPA September 29, 2023. DEQ completed text for the written annual report on 10/20/2023. OHA will finalize and submit the report to EPA in February 2024. When completed, the report will be posted on DEQ’s website (<https://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx>).

**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.

For the period of July 1, 2022 to June 30, 2023 substantial implementation was achieved by 15 public water systems serving 21,108 people

**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.

As of June 30, 2023, a total of 360 of the total 929 community water systems (39% of Oregon’s community water systems) have “substantially implemented” a strategy to protect their drinking water. Many of Oregon’s larger and more capable water systems have already achieved substantial implementation and OHA and DEQ are increasing outreach efforts to smaller water systems that have not achieved substantial implementation.

**DWP-09-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.

This task is complete, and Oregon has exceeded EPA’s national target. However, providing technical assistance to public water systems so they can achieve substantial implementation is a high priority for drinking water protection and additional outreach will occur in subsequent years for the 2022-2026 Oregon Nonpoint Source Management Program Plan. As of June 30, 2022, the number of Oregonians served by community water systems is estimated to be 3,611,312 and the number served by community water systems that have minimized public health risks through substantial source water protection is 3,108,710. Based on our estimates, this is 86% of the community water system service population in Oregon. This exceeds the EPA national target of 59% for the percent of population protected.

## 1.5 Groundwater Protection Program

**Program Goal:** Prevent groundwater contamination from nonpoint sources.

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

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

**Objective 14:** Monitor groundwater quality around the state.

**Table 24: Milestone status for GW-01-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>  |
|--|--|--|
| <b>GW-01.</b> 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. | <b>GW-01-M1.</b> Attend two meetings annually with local groups on the South Deschutes/North Klamath Groundwater Protection Project between 2022 and 2026. | <b>Not Yet Complete</b><br>Expected completion date: 12/2024 |

### **GW-01-M1 Description of Action/Milestone Status**

DEQ has had initial conversations with Deschutes County and plans to attend the February 6, 2024 Board of Commissioners Meeting to discuss next steps for this effort.

**GW-01-R1.** Number of meetings attended. Reported annually.

No meetings attended yet. Work will be done in 2024.

**Table 25: Milestone status for GW-02-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>  |
|---|---|--|
| <b>GW-02.</b> Partner with University of Oregon to identify messages that resonate with Southern Willamette Valley residents to get their drinking water wells tested or treated. | <b>GW-02-M1.</b> Well testing message developed by end of 2026. | <b>Not yet complete</b><br>Expected completion date: 12/2026 |

**GW-02-M1 Description of Action/Milestone Status**

There is a website and story map for the Southern Willamette Valley area, but specific messaging for well sampling has not started yet.

**GW-02-R1.** Status of project. Reported annually.

Expected completion by the end of 2026 as originally planned.

**Table 26: Milestone status for GW-03-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>  |
|--|--|--|
| <b>GW-03.</b> 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 | <b>GW-03-M1.</b> Slow-release fertilizer study completed by end of 2026. | <b>Not Yet Complete</b><br>Expected completion date: 12/2026 |

**GW-03-M1 Description of Action/Milestone Status**

DEQ received approval in 2023 to hire two new positions, a groundwater coordinator and soil scientist, to help with this effort and others. The Groundwater Coordinator is expected to be hired by February 2024 and the soil scientist by Summer 2024.

**GW-03-R1.** Date study was completed. Reported annually. **GW-03-R2.** Description of study results and conclusions. Reported annually.

Expected completion by the end of 2026 as originally planned.

**Table 27: Milestone status for GW-05-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>              |
|--|---|----------------------------|
| <b>GW-05.</b> 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. | <b>GW-05-M1.</b> Completion of groundwater report by January 1 of each odd numbered year. | <b>Complete</b><br>01/2023 |

**GW-05-M1 Description of Action/Milestone Status**

DEQ completed the biennial report in January 2023. [2023 Groundwater Report](#)

**GW-05-R1.** Date report was completed. Reported in 2023 and 2025 annual reports.

January 2023

**Table 28: Milestone status for GW-06-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>              |
|---|---|----------------------------|
| <b>GW-06.</b> Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the Lower Umatilla Basin Action Plan. | <b>GW-06-M1.</b> Coordinate with the Lower Umatilla Basin GWMA Committee at least two times annually. | <b>Complete</b><br>12/2023 |

**GW-06-M1 Description of Action/Milestone Status**

There has been extensive activity in the Lower Umatilla Basin in 2023. DEQ worked closely with the Committee to reorganize and select new chairs and other members. DEQ has, and continues to, attend monthly committee meetings as well as numerous subcommittee meetings. DEQ is also working extensively with sister agencies and committee members to improve the situation in the basin.

**GW-06-R1.** Number of meetings attended. Reported annually

Twelve full committee meetings were attended in 2023 and countless other meetings to support the committee in addressing the groundwater issues in the basin. Additional information can be found here: <https://lubgwma.org/meeting-minutes-and-agenda/>

**Table 29: Milestone status for GW-07-M2**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>                         |
|--|--|---------------------------------------|
| <b>GW-07.</b> Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the North Malheur County GWMA Action Plan. | <b>GW-07-M2.</b> Coordinate with the North Malheur County GWMA Committee at least four times annually and monthly if possible. | <b>Complete</b><br>Meetings as needed |



### GW-07-M1 Description of Action/Milestone Status

Due to improving conditions in the Malheur, DEQ samples the wells one time per year in April and communicate that out to the community. The Malheur committee has not officially met since 2017. The last trend analysis was completed in 2020 and there were decreasing trends overall, but still some wells were exceeding the MCL. Because of these exceedances, the GWMA cannot be de-designated. Actions that were put in place by the committee when it was active appear to be improving conditions. DEQ continues to monitor to track this improving trend. With that monitoring, DEQ continues to work with the community and will reconvene the committee when/if needed.

**GW-07-R1.** Number of meetings attended. Reported annually

There were no meetings of the Malheur committee in 2023.

**Table 30: Milestone status for GW-08-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>              |
|--|---|----------------------------|
| <b>GW-08.</b> Provide technical assistance, facilitate information sharing, and coordinate initiatives with local stakeholders to implement the Southern Willamette Valley GWMA Action Plan. | <b>GW-08-M1.</b> Coordinate with the Southern Willamette Valley GWMA Committee at least two times annually and monthly if possible. | <b>Complete</b><br>12/2023 |

### GW-08-M1 Description of Action/Milestone Status

**GW-08-R1.** Number of meetings attended. Reported annually.

Two meetings were attended in the Southern Willamette Valley GWMA in 2023.

**Table 31: Milestone status for GW-09-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>  |
|--|---|--|
| <b>GW-09.</b> Evaluate progress reducing groundwater contamination in Groundwater Management Areas | <b>GW-09-M1.</b> Complete a groundwater nitrate status and trend analysis every four years. | <b>Not Yet Complete</b><br>Expected completion date: 02/2024 |

### GW-09-M1 Description of Action/Milestone Status

DEQ collects data in all three groundwater management areas and analyzes the nitrate concentration trends. The Lower Umatilla Basin trends using DEQ-only data were evaluated in 2023 and the report is expected out in 2024. The Southern Willamette Valley trend analysis is expected to be completed by the end of 2024 and North Malheur in 2025.

**GW-09-R1.** Status of analysis. Reported annually.

Lower Umatilla Basin trend analysis report will be completed in 2024.

**Table 32: Milestone status for GW-10-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>              |
|---|---|----------------------------|
| <b>GW-10.</b> Continue monitoring wells in Lower Umatilla Basin GWMA. | <b>GW-10-M1.</b> Complete quarterly groundwater sampling of approximately 31 wells. | <b>Complete</b><br>12/2023 |

**GW-10-M1 Description of Action/Milestone Status**

DEQ completes groundwater sampling on a quarterly basis at 29-31 wells in the Lower Umatilla Basin GWMA.

**GW-10-R1.** Status of sampling. Reported annually.

The sampling was completed in 2023 and is planned to continue at this frequency.

**Table 33: Milestone status for GW-11-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>               |
|--|--|-----------------------------|
| <b>GW-11.</b> Continue monitoring wells in the Northern Malheur County GWMA. | <b>GW-11-M1.</b> Complete groundwater sampling of approximately 36 wells annually. | <b>Completed</b><br>12/2023 |

**GW-11-M1 Description of Action/Milestone Status**

DEQ completes annual groundwater sampling at 26 wells in the Northern Malheur County GWMA.

**GW-11-R1.** Status of sampling. Reported annually.

Sampling was completed in 2023 and is expected to continue annually.

**Table 34: Milestone status for GW-12-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>               |
|---|--|-----------------------------|
| <b>GW-12.</b> Continue monitoring wells in the Southern Willamette Valley GWMA. | <b>GW-12-M1.</b> Complete groundwater sampling at approximately 27 locations annually. | <b>Completed</b><br>12/2023 |

**GW-12-M1 Description of Action/Milestone Status**

DEQ completes annual groundwater sampling at 26 wells in the Southern Willamette Valley GWMA.

**GW-12-R1.** Status of sampling. Reported annually.

Sampling was completed in 2023 and is expected to continue annually.

**Table 35: Milestone status for GW-13-M1**

| Actions   | Milestones   | Status                      |
|---|--|-----------------------------|
| <b>GW-13.</b> Characterize groundwater quality outside of groundwater management areas. | <b>GW-13-M1.</b> Complete groundwater sampling at approximately 50 wells in one targeted geographic area annually. | <b>Completed</b><br>12/2023 |

**GW-13-M1 Description of Action/Milestone Status**

In 2023, DEQ sampled approximately 80 wells in the Southern Deschutes area to evaluate nitrate levels in domestic wells. This is an area of concern due to increased development in that area with individual septic systems.

**GW-13-R1.** Name and description of the groundwater monitoring geographic area. Reported annually.

Southern Deschutes Area of Concern, located south of Bend and north of La Pine.

**GW-13-R2.** Status of sampling. Reported annually.

Completed.

## 1.6 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.

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

Note that this section deals with multiple reporting periods. The reporting periods will be defined as follows:

Calendar year 2023: 01/01/2023 to 12/31/2023

State fiscal year 2023: 07/01/2022 to 06/30/2023

Federal fiscal year 2023: 10/01/2022 to 09/30/2023

**Table 36: Milestone status for 319-1-M1**

| Actions  | Milestones  | Status                             |
|--|---|------------------------------------|
| <p><b>319-1.</b> DEQ or EPA reviews watershed based plans or alternative plans for inclusion as priorities in the 319 grant RFP.</p> | <p><b>319-1-M1.</b> 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).</p> | <p><b>Complete</b><br/>12/2023</p> |

**319-1-M1 Description of Action/Milestone Status**

100% of priorities included in the 2023 319 RFP implement a watershed based plan or alternative plan. The plans have been reviewed by DEQ staff or EPA and utilize a checklist approach to ensure all the required elements have been addressed.

**319-1-R1.** Percent of priorities included in the 319 RFP that implement a watershed based plan or alternative plan. Reported annually.

100%

**319-1-R2.** Number of watershed based plan or alternative plan checklists reviewed during the reporting year. Reported annually.

One watershed based plan checklist was reviewed in 2023. The plans address temperature in the Clackamas Subbasin (17090011).

**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.

26 unique watershed-based plans or alternative plan checklists have been reviewed and included in the 319 grant RFP, including checklists reviewed in calendar year 2023.

**319-1-R4.** Description of new watershed based plan or alternative plan checklists reviewed including geographic area covered and pollutants addressed. Reported annually.

In 2023, DEQ staff reviewed and approved one new watershed-based plan checklist that addresses temperature in the Clackamas Subbasin (17090011). DEQ also reviewed and approved a checklist in late 2022 for the Lower Molalla River Watershed (1709000906) and Upper Molalla River Watershed (1709000904) addressing temperature. The Molalla River Watershed checklist was not reported in the 2022 Annual Report, so it is being reported now.

**Table 37: Milestone status for 319-2-M1 and 319-2-M2**

| Actions   | Milestones   | Status                            |
|---|--|-----------------------------------|
| <p><b>319-2.</b> Solicit and select 319 projects that support priorities.</p> | <p><b>319-2-M1.</b> 100% of grant recipients submit an annual performance report no later than June 30th of each year.</p> | <p><b>Complete</b><br/>9/2023</p> |

|  |  |   |
|--|--|---|
|  | <b>319-2-M2.</b> Annually, 100% of funded projects demonstrate progress implementing project objectives. | <b>Not Yet Complete</b><br>Expected completion date:<br>07/2024 |
|--|--|---|

**319-2-M1 Description of Action/Milestone Status**

This milestone is using the reporting period for the funds awarded in 2022. The 2023 funds were not awarded until September 2023. No new contracts for these projects were prepared during 2023. 87% of the open funded projects demonstrate progress implementing project objectives. The other projects may not yet be fully implemented or do not show enough progress.

**319-2-R1.** Number of new nonpoint source projects funded using 319 dollars during the reporting period. Reported annually.

There were 6 new nonpoint source projects funded using 319 dollars during the federal fiscal year 2023.

**319-2-R2.** Number of open 319 grant agreements during the reporting period. Reported annually.

There were 26 open 319 grant agreements during calendar year 2023.

**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.

There have been 12 nonpoint source projects funded using 319 dollars since 319 federal fiscal year 2022.

**319-2-R4.** Total amount of 319 pass through funds used to fund projects during the reporting period. Reported annually.

\$245,482 in 319 pass through funds were spent in the state fiscal year 2023.

**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.

The cumulative amount of 319 pass through funds used to fund all nonpoint source projects starting in state fiscal year 2022 through state fiscal year 2023 is \$436,359.

**319-2-R6.** Description of each open 319 project including Project Name, Agreement Number, Grant Recipient, and a project description that includes identification of the project objectives. Reported annually.

See Appendix B of this report.

**319-2-R7.** Description 319 project activities or outputs that occurred or were reported to DEQ during the reporting period. Reported annually.

Reporting period is state fiscal year 2022/2023

See Appendix B of this report.

**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.

26 out of the 26 (100%) open grant agreements submitted annual performance reports by June 30<sup>th</sup>, 2023.

**319-2-R9.** Number and percent of funded projects with DEQ grant administrators determination of satisfactory progress. Reported annually.

13 out of the 26 projects (50%) were determined to show satisfactory progress by the DEQ grant administrators with 1 not satisfactory and 1 in the very early stages of the project so no determination has yet been made.

**Table 38: Milestone status for 319-3-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>              |
|--|--|----------------------------|
| <b>319-3.</b> Requests for Proposal (RFPs) for 319 sub-awards are released in a timely manner. | <b>319-3-M1.</b> Annual RFP released by March 30 <sup>th</sup> of each year. | <b>Complete</b><br>03/2023 |

**319-3-M1 Description of Action/Milestone Status**

RFP for the FY 2023 was released to the public on March 27<sup>th</sup>, 2023

**319-3-R1.** Date 319 grant RFP was issued. Reported annually.

March 27<sup>th</sup>, 2023

**Table 39: 319-4-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>              |
|--|--|----------------------------|
| <b>319-4.</b> DEQ submits an application for funds to EPA. | <b>319-4-M1.</b> Submitted application of funds to EPA annually by May 30. | <b>Complete</b><br>06/2023 |

**319-4-M1 Description of Action/Milestone Status**

Submitted the 2023 grant application package to EPA via grants.gov.

**319-4-R1.** Date application was submitted. Reported annually.

June 28, 2023

**Table 40: Milestone status for 319-5-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>                |
|---|--|------------------------------|
| <b>319-5.</b> Score 319 sub-awards and obligate funds in a timely manner. | <b>319-5-M1.</b> Grant application scoring and eligibility criteria are updated annually.    | <b>Complete</b><br>3/15/2023 |
|   | <b>319-5-M2.</b> 100% of sub-awards are obligated within one year after the EPA grant award. | <b>Complete</b><br>07/2023   |

**319-5-M1 Description of Action/Milestone Status**

The 319 grant eligibility and ranking criteria was updated by 319 Process Improvement team on 03/15/2023.

**319-5-R1.** Date EPA grant was awarded. Reported annually.

The EPA grant for FY2022 and FY2023 was awarded on 8/29/2022 and 8/24/2023, respectively.

**319-5-R2.** Date each sub award was obligated. Reported annually.

Projects obligated in 2023 using the EPA 2022 grant award and obligation date:

- Benson Creek Wetland Restoration: 1/10/2023
- Foster Place/Brookside Johnson creek Restoration: 4/4/2023
- Fifteenmile Action to Stabilize Temperatures (FAST) 2022: 2/6/2023
- Regional Stormwater Mapping Collaboration in Douglas County: 3/19/2023
- Northwest OR Restoration Partnership: 7/6/2023
- Backyard Planting Program: 7/7/2023

2023 Award projects recommended for funding and expected to obligated by September 30<sup>th</sup>, 2024.

- Fifteenmile action to stabilize temperatures (FAST) 2023-2025
- Backyard Planting Program (BYPP) 2023
- Nestucca, Neskowin, and Sand Lake Basins Riparian Improvement Project
- Healthy Industrial Lands Initiative
- Pheasant Creek WQ and Habitat Enhancement project

**319-5-R3.** Percent of total sub-awards obligated within one year after EPA grant award. Reported annually.

DEQ obligated 100% of total sub-awards within one year of the 2022 EPA grant award. Obligations for subawards using the 2023 EPA grant are in progress and expected to be obligated by September 30<sup>th</sup>, 2024. 2/5 or 40% have been obligated as of May 2024.

**Table 41: Milestone status for 319-6-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>   |
|---|--|---|
| <b>319-6.</b> Manage 319 sub-awards consistent with legal obligations and in an efficient manner. | <b>319-6-M1.</b> 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 “transferred” to a more current existing 319 grant. | <b>Not Yet Complete</b><br>2023 grant funds to be used by 9/30/2028 |
|   | <b>319-6-M2.</b> Grant progress reports are submitted to EPA via GRTS annually.  | <b>Complete</b><br>04/2023  |

**319-6-M1 Description of Action/Milestone Status**

**319-6-R1.** Percent of grant dollars spent by grant end date or transferred to a more current grant. Reported annually.

DEQ reobligated \$14,656 of the \$257,245 (5.7%) from the 2018 grant to the 2023 pass through fund and spent the remaining 94.3%.

**319-6-R2.** Date annual grant progress reports were submitted to EPA via GRTS. Reported annually.

The annual grant progress reports were submitted to GRTS by 04/2023.

**Table 42: Milestone status for 319-7-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>  |
|---|---|--|
| <b>319-7.</b> Determine the feasibility of developing an online, iterative grant application. | <b>319-7-M1.</b> Completed feasibility findings by Dec 31 2024. | <b>Not Yet Complete</b><br>No expected completion date |

**319-7-M1 Description of Action/Milestone Status**

The DEQ 319 Process Improvement Team determined that an online 319 grant management approach is not feasible at this time. The intention for a web-based application was targeted to large, complicated grant projects. The 319 projects are smaller and not complicated enough to justify investing the time in an application development and training program. Further evaluation could be considered in the future.

**319-7-R1.** Date of completed feasibility determination of online application process. Reported annually.

n/a



**319-7-R2.** Summary description of feasibility status, conclusions and any anticipated or completed actions. Reported annually.

n/a

**Table 43: Milestone status for 319-8-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>                |
|---|--|------------------------------|
| <b>319-8.</b> Update review and/or scoring criteria and project eligibility requirements for 319 funds. | <b>319-8-M1.</b> Completion of review and updates to scoring criteria. | <b>Complete</b><br>3/15/2023 |

**319-8-M1 Description of Action/Milestone Status**

Preparing the 2023 RFP included a review on the WBP eligibility and ranking process for reviewing and prioritizing recommendations for funding.

**319-8-R1.** Date of completed review. Reported annually.

DEQ completed the scoring criteria review on 3/15/2023.

**319-8-R2.** Narrative summary describing review status and any anticipated or completed actions. Reported annually.

DEQ received and reviewed eight 319 grant submissions in 2023. Each submission was screened for completeness and scored based on evaluation criteria included in the 319-grant request for proposals. Regional staff met to rank projects by region and HQ staff submit funding recommendations to HSPIG. DEQ recommended funding for five projects. HQ staff included the recommended workplans and budgets in the 2023 Oregon Intended Use Plan (i.e., 319 grant workplan).

In 2023, DEQ modified the 319-grant request for proposals and evaluation criteria to align with Oregon Watershed Enhancement Board grant evaluation criteria and EPA recommendations to increase equity and environmental justice considerations in the nonpoint source program. The proposed evaluation criteria are currently under review by the technical work team, funded by an EPA technical assistance project, seeking to increase equitable NPS pollution outcomes across the state. DEQ anticipates including the modifications in the 2024 request for proposals.

**The 319 Program and Performance Partnership Grant**

The federal 319 contribution to the 2022-2024 Performance Partnership Grant supports Element 2 (TMDLS - Total Maximum Daily Loads and Water Quality Management Plans) and Element 8 (Management of Nonpoint Sources of Pollution) of Appendix C. (PPA2024.pdf (oregon.gov)). The federal share of the 319 grant contribution to the grant is budgeted to fund 8.94 FTE. Table 44 summarizes the 319 funded activities to be completed by those 8.94 FTEs.

Table 44: Summary of 319 funded activities by FTE

| 2022 Oregon’s 319 Grant Funded Positions and Nonpoint Program Activities   | FTE   |
|--|-------|
| NPS TMDL Modeling  | 1.89  |
| Regional NPS Implementation and NPS TMDL Development and Implementation  | 5.04  |
| Prorates and Management and Administrative Support   | 1.01  |
| 319 Grant Administration and Provision of Technical Assistance with Applicants, DEQ Staff and Coordination with Other Funding Agencies     | 1.00  |
| NPS Policy Development, Collaboration and Provision of Technical assistance with Stakeholders and other Local, State, and Federal Agencies | 0.00* |

\*This was included to reflect the change from 1.00 FTE in the 2020-2022 budget to 0.00 in the 2022-2024 budget.

In 2023, \$1,089,320 of Section 319 funds were used to support DEQ staff implementing eligible activities. Combined with pass through grants that directly funded watershed-based projects (\$245,482) the total sum of 319 funds spent on watershed-based projects and eligible activities by DEQ staff was \$1,334,802. Therefore, DEQ spent the equivalent of 74% of the total 2023 appropriation (\$1,792,500) implementing watershed projects and exceeding the minimum requirement in EPA guidance that states must use at least 50% of the annual appropriation of Section 319 funds for watershed project implementation.

## 1.7 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 45: Milestone status for CWSRF-01-M1

| Actions   | Milestones  | Status                     |
|---|---|----------------------------|
| <b>CWSRF-01.</b> Fund nonpoint pollution control projects with Oregon CWSRF | <b>CWSRF-01-M1.</b> Continue to provide CWSRF loans for nonpoint source pollution control projects in Oregon annually over the next five years. | <b>Complete</b><br>12/2023 |

### CWSRF-01-M1 Description of Action/Milestone Status

The CWSRF program continues to finance and implement nonpoint source pollution control projects throughout Oregon including septic tank repair and replacement, irrigation modernization, stormwater, and watershed protection. Last year, the program completed eight NPS projects totaling \$7,679,708 in financing noted in the 2022 Nonpoint Source Pollution

Program Annual Report 2022. NPS projects can take time, often more than one and sometimes several years, from application and meeting requirements to project planning, design, construction, and completion. The program continues to coordinate with the Oregon DEQ Nonpoint Source Pollution Program staff on determining eligibility of NPS projects for CWSRF funding and implementation of the Oregon Nonpoint Source Management Program Plan 2022. The following provides updates on specific metrics for the NPS Annual Report 2023.

**CWSRF-01-R1.** Number of new nonpoint source projects funded using CWSRF dollars during the reporting period.

During calendar year, the Oregon CWSRF funded one new nonpoint source project for the City of Port Orford North Hubbard Creek for \$826,015. This land acquisition project will protect the N. Fork Hubbard Creek watershed including drinking water source for the City of Port Orford. This is the first CWSRF land acquisition project for a land purchase like this and the program coordinated closely with NPS staff on the project to address water quality benefits. While the program did not finalize many loans for projects, the program has eight additional NPS projects on our Intended Use Plan to received funding within the next three years.

**CWSRF-1-R2.** Cumulative number of nonpoint source projects funded using CWSRF dollars since Jan 1, 2023.

The Oregon CWSRF program currently has 12 nonpoint source projects funded since January 1<sup>st</sup>, 2023.

**CWSRF-1-R3.** Total amount of CWSRF dollars used to fund to each nonpoint source projects during the reporting period.

The total amount of CWSRF dollars used to fund nonpoint source projects during the reporting period is \$18,434,845. A breakdown for each project is listed in the table below with project descriptions.

**CWSRF-1-R4.** Cumulative CWSRF dollars used to fund all nonpoint source projects since Jan 1, 2023.

The total cumulative amount of CWSRF dollars used to fund nonpoint source projects since Jan 1, 2023, is \$18,434,845, including \$826,015 new.

**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.

**Table 46: Description of each active CWSRF nonpoint source project.**

| <b>Admin Basin</b> | <b>Project Name</b>   | <b>Borrower</b>  | <b>Loan Number</b> | <b>Loan Amount</b> | <b>Brief project description and objectives</b>   | <b>Status</b>   |
|--------------------|---|--|--------------------|--------------------|---|---|
| Rogue              | Riparian Restoration in Bear Creek Watershed (In progress)      | City of Ashland  | R11754             | \$4,829,000        | The project involves riparian restoration with native plantings on lots owned by City of Ashland along Bear Creek. The project is being conducted in phases with individual smaller loans "bundled" under one loan over time.   | <b>Not Yet Complete.</b> Planting of native species for riparian restoration. Work has begun on 7 sites, with 3 additional sites in process. Expected to complete in 2028.  |
| Rogue              | Joint System Canal Piping Project                               | Medford Irrigation District and Rogue River Valley Irrigation District & | R78600             | \$1,500,000        | The project includes design and construction of piping up to 4.4 miles of canal and diversions, siphons replacement, water diversion structure and fish passage improvements in the Little Butte Creek watershed.   | <b>Not Yet Complete,</b> still a design only loan. Borrower searching for additional funding for the project and working with SRF Finance on financing scenarios. Currently no estimate of when construction is planned. Environmental not complete |
| Clackamas          | Three Creeks Floodplain Enhancement                             | Water Environment Services   | R95031             | \$1,450,000        | The Three Creeks Floodplain Enhancement project would modify the existing outlet control structure on the detention facility to enhance floodplain processes, enhance the existing natural floodplain area, construct wetlands and terraces to increase flood storage, provide sediment filtration to improve water quality, fish and wildlife habitat, restore wetlands and natural floodplain function. | <b>Not Yet Complete:</b> In Design-90% complete. Will NOT use SRF funds for construction.   |
| Clackamas          | Local Community Loan Program                                    | Clackamas Soil and Water Conservation District                           | R22407             | \$549,756          | Local community loan program to provide loans to residents for septic tank repair and replacement, which will address contaminants including nitrates and bacteria in the Clackamas River basin and improve water quality.  | <b>Not Yet Complete.</b> Implementation ongoing; anticipated end date end of 2024.  |
| Hood               | Reservoir Enhancement Project: Outlet Replacement and Dam Raise | Farmers Irrigation District  | R32245             | \$3,071,574        | Design and construction of water pipe to replace open ditches and canals to improve water efficiency and water quality in the Hood River basin.   | <b>Not Yet Complete.</b> Construction ongoing, expected completion end of 2025  |

| <b>Admin Basin</b> | <b>Project Name</b>  | <b>Borrower</b>     | <b>Loan Number</b> | <b>Loan Amount</b> | <b>Brief project description and objectives</b>  | <b>Status</b>  |
|--------------------|--|---------------------|--------------------|--------------------|--|--|
| South Coast        | Front Street Green Streets   | City of Coos Bay    | R24001             | \$5,570,000        | The project involves remediation of a clean-up site and stormwater management improvements to improve water quality and site restoration for downtown revitalization in Coos Bay. Remediation activities will treat contamination, mitigate risk of groundwater and surface water contamination, stabilize the site, and allow further site improvements, which will include water quality benefits from stormwater treatment. | <b>Not Yet Complete.</b> Construction ongoing, expected completion end of 2024   |
| South Coast        | S. 4th Street Green Parking Lot  | City of Coos Bay    | R24003             | \$100,000          | This project is part of a broader "green streets" initiative by the City of Coos Bay. The 4th Street Green Parking Lot project will involve incorporating green infrastructure at the parking site to improve stormwater treatment for water quality benefits and downtown revitalization in Coos Bay.   | <b>Not yet complete. <i>Withdrawn.</i></b><br><b><i>Will not construct project.</i></b>  |
| South Coast        | 2nd Street Green Street and Parking Lots and Brownfields Remediation and Land Revitalization | City of Coos Bay    | R24005             | \$908,500          | This project involves remediation of the Englewood School Englewood School and green streets to improve stormwater management in Coos Bay. The project will mitigate risk of contamination and implement green stormwater management to mitigate contaminated runoff into waterways and improve water quality through stormwater treatment.  | <b>Complete.</b> Construction on Englewood complete; will not construct 2nd Street. Moving into closure and repayment.                                   |
| South Coast        | North Fork Hubbard Creek Land Acquisition  | City of Port Orford |                    | \$826,015          | Land acquisition to protect drinking water source watershed for City of Port Orford plus minor invasive species control after acquisition complete.  | <b>Not Yet Complete.</b> Land acquisition expected to close March 2025; then 3 years for invasive species control efforts; expected to complete in 2027. |

| Admin Basin | Project Name   | Borrower                       | Loan Number | Loan Amount | Brief project description and objectives   | Status   |
|-------------|--|--------------------------------|-------------|-------------|--|--|
| Deschutes   | Lone Pine Irrigation District Modernization Project – Design | Lone Pine Irrigation District  | R58710      | \$250,000   | The project will convert the current system of open canals into a fully piped system using HDPE and steel pipe. The project will also construct a new pipeline crossing of the Crooked River, using a siphon placed under the river to deliver pressurized water to patrons on the other side of the river. The project will improve water quality for temperature, dissolved oxygen, and pH in the Deschutes River basin.   | <b>Not Yet Complete:</b> in construction (less than 50%) expected completion ~end of summer 2024                                   |
| Deschutes   | Ochoco Irrigation District Modernization Project             | Ochoco Irrigation District     | R70100      | \$680,000   | The project includes converting existing canals and laterals to pipes, installing new pump stations, raising canal banks and installing a new lateral line. The combined projects components will reduce irrigation system spills, which contribute to water quality impairments, mitigate safety risks due to natural disasters. The project will improve water quality for temperature, dissolved oxygen, pH, bacteria, nutrients, and pesticides through increased flow in McKay Creek and Crooked River (Grimes Flat laterals).  | <b>Not Yet Complete:</b> portion using CWSRF funds has been delayed until 2024-2025, working on State Environmental Review Process |
| Deschutes   | Lateral 43 and Juniper Butte Piping Project                  | North Unit Irrigation District | R69600      | \$200,000   | The project including piping 8.2 miles of leaky canal laterals and serving over 9,800 acres of agricultural land. The project will improve water quality in the lower Crooked River, Lake Billy Chinook and the lower Deschutes River by removing canal seepage and minimizing/eliminating return flow from agricultural lands. Piping of the laterals will also encourage on-farm efficiency by providing pressurized water, which enables the switch from furrow (flood) irrigation to sprinkler irrigation, reducing excessive seepage and agricultural runoff from fields. | <b>Not Yet Complete:</b> design in progress, estimated project completion 2028   |

**CWSRF-1-R6.** Description of project outputs or accomplishments that occurred or were reported to DEQ during the reporting period.

See the table in CWSRF-1-R5.

**Additional Highlight:** The City of Coos Bay completed the Englewood School brownfields remediation project funded by the Oregon CWSRF program. The project involved remediation of the Englewood School and green streets to improve stormwater management in Coos Bay. The project will mitigate risk of contamination and implement green stormwater management to mitigate contaminated runoff into waterways and improve water quality through stormwater treatment. This is the first brownfields project funded by Oregon DEQ CWSRF.

## 1.8 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.

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

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

**Table 47: Milestone status for AG-01-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>                 |
|--|---|-------------------------------|
| <b>AG-01.</b> DEQ and ODA complete a revision to the DEQ/ODA Memorandum of Agreement | <b>AG-01-M1.</b> DEQ and ODA complete a revision to the MOA by June 30, 2023. | <b>Complete</b><br>01/09/2023 |

### **AG-01-M1 Description of Action/Milestone Status**

**AG-01-R1.** Status of MOA revision reported in the 2023 annual report or until complete.

DEQ and ODA completed a revision to the Memorandum of Agreement on 01/09/2023 (<https://www.oregon.gov/oda/shared/Documents/Publications/NaturalResources/WaterQualityGoalsMOA.pdf>).

**Table 48: Milestone status for AG-02-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>              |
|---|---|----------------------------|
| <b>AG-02.</b> 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. | <b>AG-02-M1.</b> 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). | <b>Complete</b><br>12/2023 |

**AG-02-M1 Description of Action/Milestone Status**

DEQ submitted written recommendations to ODA for 83% (5 of 6) of the biennial review processes where a full review was conducted in 2023. DEQ was not able to complete a formal comment letter for the 6<sup>th</sup> full review (Tualatin) due to ODA significantly shortening the timeframe for the review process. However, DEQ provided verbal comments in person at ODA’s Local Advisory Committee meeting for the Tualatin Water Quality Management Area Plan full review. DEQ also provided verbal comments in person for all of the light reviews (11) completed in 2023.

**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.

**Table 49: Agricultural Management Areas that conducted a biennial review in calendar year 2023.**

| <b>Ag WQ Management Area</b>            | <b>What type of review (Full/Light)?</b> | <b>Did DEQ submit written comments and recommendations to ODA in 2023?</b> |
|---|--|--|
| South Santiam                           | Full                                     | Yes  |
| Klamath                                 | Full                                     | Yes  |
| Curry                                   | Full                                     | Yes  |
| Upper Willamette & Upper Siuslaw        | Full                                     | Yes  |
| Tualatin                                | Full                                     | No (provided verbal comments)  |
| John Day – Lower                        | Full                                     | Yes  |
| John Day – North & Middle Forks         | Light                                    | No   |
| John Day – Upper Mainstem & South Forks | Light                                    | No   |
| Umpqua                                  | Light                                    | No   |
| Deschutes – Middle                      | Light                                    | No   |
| Deschutes – Upper                       | Light                                    | No   |
| Hood River                              | Light                                    | No   |
| Crooked                                 | Light                                    | No   |
| Upper Grand Ronde                       | Light                                    | No   |
| Wallowa                                 | Light                                    | No   |
| Goose & Summer Lakes                    | Light                                    | No   |
| Harney                                  | Light                                    | No   |



**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.

See Table 49.

**Table 50: Milestone status for AG-03-M1**

| Actions  | Milestones   | Status                  |
|--|--|-------------------------|
| <b>AG-03.</b> Development monitoring plans for each SIA. | <b>AG-03-M1.</b> 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. | <b>Not Yet Complete</b> |

**AG-03-M1 Description of Action/Milestone Status**

This metric is not meeting the milestone and has been proven to not be feasible based on multiple factors including a lack of capacity and expertise within the local partners. There are three monitoring plans left to approve with four new 2023 plans where Local Monitoring Teams (LMT) only started forming in 2024.

Status of the three monitoring plans to be approved:

- Eastern Lower Deschutes, Sherman: Lack of personnel, still following up.
- Burnt River, Burnt River SWCD: Expected October 2024.
- Bear Creek, Upper Willamette: Monitoring lead took another job, staffing issue.

New 2023 SIAs that are forming LMTs in 2024: Lower Umatilla, Sauvie Island, North and South Scappoose Creeks, and South Umpqua.

**AG-03-R1.** Number and identification of SIA monitoring plans approved by MAG in the previous calendar year. Reported annually.

There are 8 SIA monitoring plans approved by the MAG in 2023:

- Middle Sprague River, Klamath SWCD, 4/1/2023
- Upper Catherine Creek, Union, 3/1/2024
- Upper Willow Creek Basin, Morrow SWCD, 8/1/2023
- Howell-Prairie, Marion SWCD, 4/1/2023
- Upper Yaquina River, Lincoln SWCD, 4/1/2023
- Upper and Little Deschutes River, Deschutes SWCD, 2/1/2024
- East Birch Creek, Umatilla SWCD, 12/1/2023
- Dry Creek and Couse Creek, 12/1/2023

**Table 51: Milestone status for AG-04-M1**

| Actions                              | Milestones  | Status                  |
|--------------------------------------|---|-------------------------|
| <b>AG-04.</b> Implementation of SIAs | <b>AG-04-M1.</b> 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. | <b>Not Yet Complete</b> |

**AG-04-M1 Description of Action/Milestone Status**

The Upper Sprague SIA was the only SIA closed in CY 2023. At closing, seven tax lots remained likely out of compliance due to unresponsive landowners to ODA’s requests for site visits. After the SIA closed, five tax lots evaluated as potentially out of compliance were sold to a new landowner. ODA was able to meet with the new landowner and partnered with Trout Unlimited to address the concerns. The project resulted in a change of livestock grazing patterns and new exclusion fencing. The five tax lots were then reevaluated as in-compliance after the SIA had already closed, resulting in two tax lots with compliance concerns remaining in the SIA. ODA is continuing to engage with the landowner of the two remaining tax lots. Expected completion date is 12/2024.

**AG-04-R1.** Percentage of SIA properties in closed SIAs that are deemed in compliance with evaluated area rules. Reported annually.

99.5%

**AG-04-R2.** Percentage of taxlots identified as having no regulatory concerns on the first evaluation. Reported annually.

90.3%

**AG-04-R3.** Total number of SIA properties in closed SIAs that are deemed in compliance with evaluated area rules. Reported annually.

3,012 taxlots

**AG-04-R4.** Total number of taxlots identified as having no regulatory concerns on the first evaluation. Reported annually.

2,733 taxlots

**AG-04-R5.** Total number of evaluated taxlots in SIAs. Reported annually.

3,028 taxlots

**AG-04-R6.** Identification of closed SIAs. Reported annually.

Upper Sprague River was the only SIA that was closed in 2023.

## 1.9 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 52: Milestone status for PF-03-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>              |
|---|---|----------------------------|
| <b>PF-03.</b> Maps identifying perennial streams in Oregon are updated. | <b>PF-03-M1.</b> The updated maps identifying perennial streams are incorporated into ODF FERNS no later than July 1, 2025. | <b>Complete</b><br>07/2023 |

### **PF-03-M1 Description of Action/Milestone Status**

**PF-03-R1.** Status of mapping and incorporation into ODF FERNS. Reported annually until complete.

The new ODF stream layer was made public July 1, 2023 and can be accessed at the following link:

<https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=dde877f74cf84fdb53bd4b57204c2fe>

The layer is updated continuously.

**Table 53: Milestone status for PF-05-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>           |
|--|---|-------------------------|
| <b>PF-05.</b> The state agencies complete other actions necessary to implement the requirements of the Private Forest Accord Report. | <b>PF-05-M1.</b> Completion of other actions necessary to implement the requirements of the Private Forest Accord Report. | <b>Complete/Ongoing</b> |

### **PF-05-M1 Description of Action/Milestone Status**

**PF-05-R1.** Status and summary of other actions completed.

**Table 54: Status of actions related to implementing the Private Forest Accord requirements.**

| <b>Action</b>   | <b>Status</b>        | <b>Date</b> |
|---|----------------------|-------------|
| ODF Board of Forestry adopted PFA rule package  | Complete             | 11/30/2022  |
| ODF procured a landslide modeling tool that can be implemented in 2024  | Complete             | 5/1/2023    |
| Expanded stream-buffer requirements go into effect for large private forestland owners, defined as owning 5,000 or more acres of forestland | Complete             | 7/1/2023    |
| New map layer of perennial streams made public  | Updated continuously | 7/1/2023    |

| Action  | Status           | Date                       |
|---|------------------|----------------------------|
| Annual SFISH Report to legislature  | Annual           | 9/15/2023                  |
| ODF Forest Activity Electronic Reporting Notification System (FERNS) was updated to reflect new FPA/PFA rules | Complete         | 12/15/2023                 |
| All Private Forest Accord rules go into effect  | Complete         | 1/1/2024                   |
| Module A and B Stewardship Forester Trainings on FPA rules  | Continuous       | Spring, Fall & Winter 2023 |
| New Compliance Monitoring Program Committee (CMPC) formed and began meeting                                   | Quarterly        | January 9, 2023            |
| New Adaptive Management Program Committee (AMPC) formed and began meeting                                     | Monthly          | January 25, 2023           |
| Post Disturbance Harvest Rules  | Not Yet Complete | TBD                        |
| Tethered Logging Rules  | Not Yet Complete | TBD                        |
| Develop Aquatic Habitat Conservation Plan   | Not Yet Complete | TBD                        |
| Receive Incidental Take Permit by 12-31-2027  | Not Yet Complete | TBD                        |

## Update on the Coastal Zone Act Reauthorization Amendments (CZARA)

The Department of Environmental Quality (DEQ) and Department of Land Conservation and Development (DLCD) are working to re-submit Oregon’s Coastal Nonpoint Pollution Control Program (CNPCP). Since Oregon’s CNPCP was disapproved in 2015, DEQ and DLCD have had 30% reductions in two significant federal grants. Insufficiencies in four specific areas within the State’s forestry program established the basis for the disapproval. As a result, we are currently working with ODF to update the forestry section of the CNPCP to demonstrate how the updates to forestry authorities and the TMDL program address the identified gaps that lead to federal disapproval. Additionally, we are responding to questions from the Environmental Protection Agency (EPA) and National Oceanic and Atmospheric Administration (NOAA) about CZARA management measures that received interim approval in years past. Updated descriptions of our strategies for meeting these management measures will be included in our re-submittal, which will be completed by the end of summer 2024 to EPA and NOAA.

### 1.10 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 55: Milestone status for TRS-02-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>  |
|--|--|--|
| <b>TRS-02.</b> Identify analytical methods or process improvements needed to analyze Focus List chemicals. | <b>TRS-02-M1.</b> 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. | <b>Not Yet Complete</b><br>Project currently suspended |

**TRS-02-M1 Description of Action/Milestone Status**

The tracking tool, completed in 2021, was pending peer review from DEQ’s Laboratory QA Officer and Inorganic Section in 2022. As of now, this project has been suspended until DEQ is able to hire an agency Toxics Coordinator to help support and guide the project in the future. This position should be hired during the first half of 2024.

**TRS-02-R1.** See above description.

**TRS-02-R2.** See above description.

## 1.11 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 56: Milestone status for PSP-01-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>              |
|---|--|----------------------------|
| <b>PSP-01.</b> Monitor and analyze pesticide levels in waterbodies. | <b>PSP-01-M1.</b> Sampling complete, data submitted to AWQMS and analyzed by DEQ staff by March of the following year. | <b>Complete</b><br>04/2023 |

**PSP-01-M1 Description of Action/Milestone Status**

**PSP-01-R1.** Summary of data analysis in WQMPT and watershed-based Pesticide Stewardship Partnership (PSP) reports and presentations. Reported annually.

Throughout calendar year 2023 the PSP Program took 686 surface water samples at 53 stations across the 9 PSP basins. This resulted in 58,221 analyses of compounds against relevant biological criteria. The following section shows some of the results of that analysis.

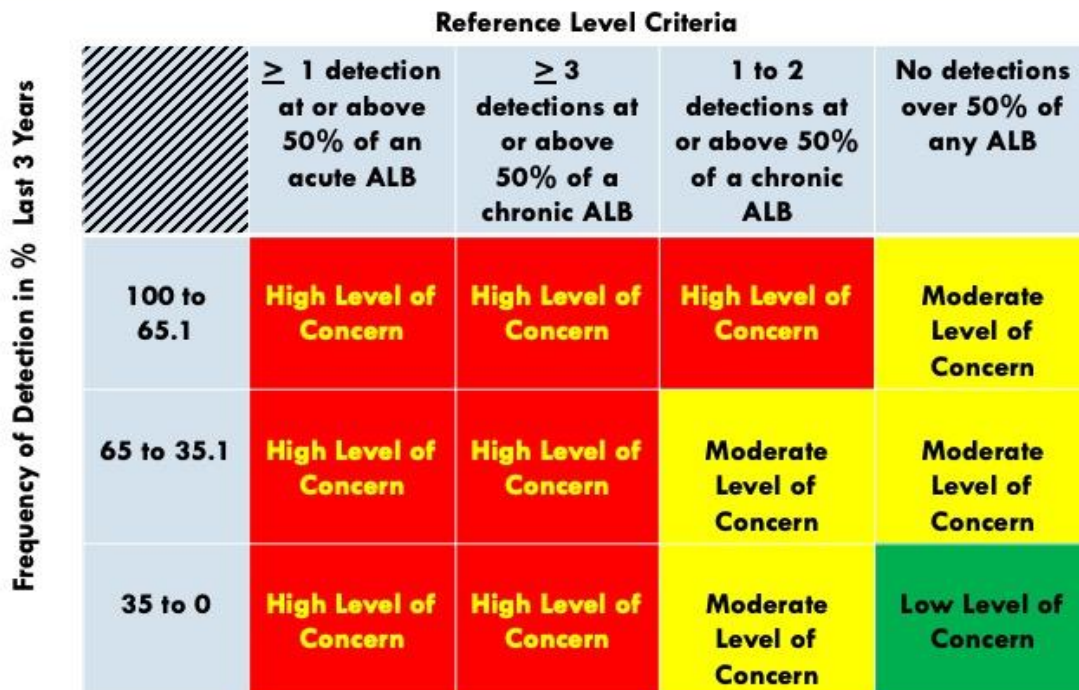
**Table 57: Summary of the 2023 Pesticide Stewardship Partnership Program instream water quality monitoring.**

| Year | PSP              | Number of Samples | Number of Analyses* | Number of Stations | Number of New Stations |
|------|------------------|-------------------|---------------------|--------------------|------------------------|
| 2023 | Amazon           | 105               | 8540                | 5                  | 0                      |
| 2023 | Clackamas        | 83                | 8135                | 5                  | 0                      |
| 2023 | Hood River       | 51                | 5166                | 6                  | 1                      |
| 2023 | Middle Deschutes | 74                | 5397                | 6                  | 1                      |
| 2023 | Middle Rogue     | 113               | 9193                | 12                 | 6                      |
| 2023 | Pudding          | 48                | 4079                | 5                  | 0                      |
| 2023 | Walla Walla      | 82                | 7410                | 5                  | 0                      |
| 2023 | Wasco            | 66                | 6108                | 4                  | 0                      |
| 2023 | Yamhill          | 64                | 4193                | 5                  | 0                      |

\*Analyses refer to the testing for a specific analyte. Each sample is tested for numerous analytes, depending on the method.

The PSP program categorizes pesticide ingredients found in water bodies to aid decision making, education, and outreach among other program functions. Categories are represented by level of concern. Every ingredient is categorized within each of the nine individual PSP basins as either a high, moderate, or low level of concern using the matrix in Figure XX.

**Decision Matrix Based on Water Monitoring Data (2019)**  
Detected concentration relative to aquatic life benchmarks (ALB) and frequency of detection



Each Pesticide Stewardship Partnership area will determine the level of concern for detected pesticides. Pesticides that are deemed of high concern in over 30% of The PSP areas will be designated as statewide pesticide of high concern or statewide Pesticides of concern (POC's)

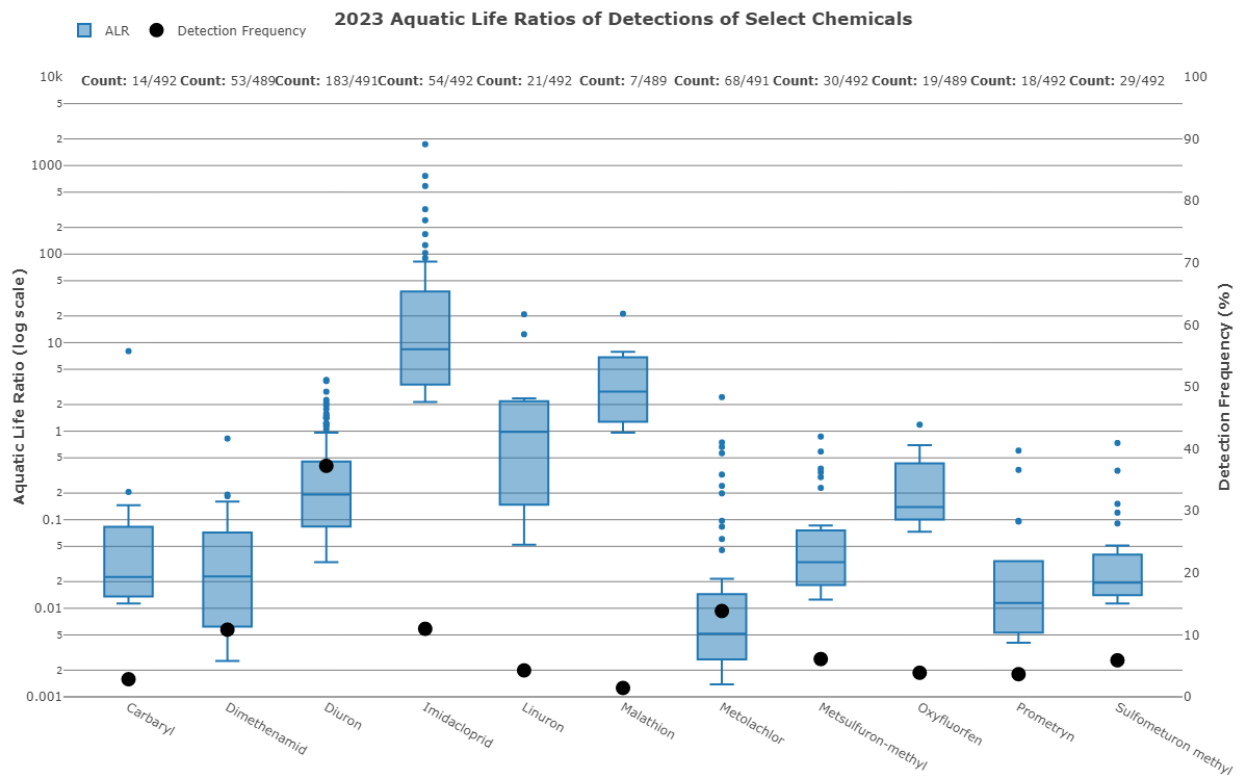
**Figure 1: PSP Pesticide of Concern Decision Matrix.**

Each pesticide of concern determination is then rolled up across all PSP basins to determine a level of concern statewide. Pesticides that are of high concern in at least a third of the PSP basins are considered high pesticides of concern statewide. Pesticides that are of high concern in any PSP basin or are a moderate pesticide of concern in at least a third of the PSP basins are considered moderate pesticides of concern statewide. The rest of the pesticides are considered low pesticides of concern statewide. The statewide high and moderate pesticides of concern are shown in the following table.

**Table 58: Statewide High and Moderate pesticides of concern.**

| <b>Ingredient</b>                             | <b>Type</b> | <b>High</b> | <b>Moderate</b> | <b>Low</b> | <b>Category</b> |
|---|-------------|-------------|-----------------|------------|-----------------|
| Diuron  | Herbicide   | 67%         | 0%              | 33%        | High            |
| Imidacloprid                                  | Insecticide | 78%         | 11%             | 11%        | High            |
| Oxyfluorfen                                   | Herbicide   | 44%         | 0%              | 56%        | High            |
| Sulfometuron methyl                           | Herbicide   | 33%         | 0%              | 67%        | High            |
| (RS)-AMPA<br>(Aminomethyl<br>phosphonic acid) | Herbicide   | 0%          | 78%             | 22%        | Moderate        |
| 2,6-Dichlorobenzamide                         | Herbicide   | 0%          | 56%             | 44%        | Moderate        |
| Atrazine                                      | Herbicide   | 11%         | 0%              | 89%        | Moderate        |
| Bifenthrin                                    | Insecticide | 11%         | 0%              | 89%        | Moderate        |
| Carbaryl                                      | Insecticide | 11%         | 0%              | 89%        | Moderate        |
| Chlorpyrifos                                  | Insecticide | 22%         | 0%              | 78%        | Moderate        |
| Deisopropylatrazine                           | Insecticide | 0%          | 33%             | 67%        | Moderate        |
| Diazinon                                      | Insecticide | 11%         | 0%              | 89%        | Moderate        |
| Dichlobenil                                   | Herbicide   | 11%         | 0%              | 89%        | Moderate        |
| Dimethenamid                                  | Herbicide   | 11%         | 11%             | 78%        | Moderate        |
| Dimethoate                                    | Insecticide | 11%         | 0%              | 89%        | Moderate        |
| Glyphosate                                    | Herbicide   | 0%          | 89%             | 11%        | Moderate        |
| Linuron                                       | Herbicide   | 11%         | 11%             | 78%        | Moderate        |
| Malathion                                     | Insecticide | 22%         | 0%              | 78%        | Moderate        |
| Metolachlor                                   | Herbicide   | 11%         | 11%             | 78%        | Moderate        |
| Metsulfuron-methyl                            | Herbicide   | 11%         | 0%              | 89%        | Moderate        |
| Prometryn                                     | Herbicide   | 11%         | 0%              | 89%        | Moderate        |
| Simazine                                      | Herbicide   | 11%         | 22%             | 67%        | Moderate        |

When presenting monitoring results of multiple pesticides with varying levels of toxicity, the PSP program uses a ratio to normalize the data against toxicity. The ratio used in the program takes the pesticide concentration from the sample and divides it by the lowest EPA aquatic life benchmark for that ingredient. This is called the “Aquatic Life Ratio” (ALR). An ALR above 1 represents an exceedance of the benchmark. The following plots summarize 2023 monitoring of select chemicals from the PSP program using ALRs and detection frequencies.



**Figure 2: 2023 PSP statewide monitoring data showing Aquatic Life Ratio and detection frequency of select pesticides of concern.**

### Trends in PSP data

The monitoring results from PSP were analyzed to determine trends in the data. Data from 2012 to 2023 were included in the analysis and a minimum of 8 years of data was required to make a determination of trend. Because of the seasonality of the data, trends were calculated using a seasonal Kendall analysis. A Seasonal Kendall test is a nonparametric method used to test for a monotonic trend and can account for the influence of seasonal fluctuations by calculating a Mann-Kendall test on each defined season separately. A season can be any period of time and in this analysis each calendar month defined a season.



**Table 59: PSP monitoring data trend results. Results are shown by the number of each trend category in the following format; improving | degrading | no significant trend**

| <b>Ingredient</b>                       | <b>Amazon</b>  | <b>Clackamas</b> | <b>Walla Walla</b> | <b>Wasco</b>  | <b>Yamhill</b> | <b>Hood River</b> | <b>Middle Rogue</b> | <b>Pudding</b> | <b>Middle Deschutes</b> | <b>Statewide Totals</b> |
|---|----------------|------------------|--------------------|---------------|----------------|-------------------|---------------------|----------------|-------------------------|-------------------------|
| (RS)-AMPA (Aminomethyl phosphonic acid) | 0 1 0          | 1 0 0            | 0 0 3              | 0 0 1         | 1 0 0          | 0 0 0             | 0 0 0               | 0 0 0          | 0 0 0                   | 2 1 4                   |
| 2,6-Dichlorobenzamide                   | 5 0 0          | 1 0 2            | 0 0 0              | 1 0 1         | 5 0 0          | 3 0 0             | 0 0 1               | 0 0 1          | 0 0 0                   | 15 0 5                  |
| Atrazine                                | 2 0 2          | 0 0 0            | 0 0 1              | 1 0 0         | 2 0 3          | 0 0 0             | 0 0 0               | 1 0 0          | 0 0 0                   | 6 0 6                   |
| Bifenthrin                              | 0 0 0          | 0 0 1            | 0 0 0              | 0 0 0         | 0 0 1          | 0 0 0             | 0 0 0               | 0 0 0          | 0 0 0                   | 0 0 2                   |
| Carbaryl                                | 0 0 5          | 0 0 2            | 1 0 2              | 0 1 3         | 0 0 3          | 0 0 2             | 0 0 1               | 0 0 1          | 0 0 0                   | 1 1 19                  |
| Chlorpyrifos                            | 0 0 0          | 0 0 1            | 0 1 2              | 0 0 1         | 0 0 4          | 0 0 1             | 0 0 0               | 0 0 0          | 0 0 0                   | 0 1 9                   |
| Deisopropylatrazine                     | 0 0 3          | 0 2 1            | 0 0 0              | 1 0 0         | 2 0 3          | 3 0 0             | 0 0 0               | 1 0 0          | 0 0 0                   | 7 2 7                   |
| Diazinon                                | 0 0 0          | 0 0 1            | 0 0 0              | 0 0 0         | 0 0 1          | 0 0 0             | 0 0 0               | 0 0 0          | 0 0 0                   | 0 0 2                   |
| Dichlobenil                             | 0 0 3          | 1 0 2            | 0 0 0              | 0 0 0         | 0 0 2          | 0 0 1             | 0 0 1               | 0 0 0          | 0 0 0                   | 1 0 9                   |
| Dimethenamid                            | 0 0 1          | 0 2 0            | 0 0 0              | 0 0 0         | 0 2 2          | 0 0 0             | 0 0 0               | 1 0 0          | 0 0 1                   | 1 4 4                   |
| Dimethoate                              | 0 0 0          | 0 0 0            | 0 0 0              | 0 0 0         | 0 0 0          | 0 0 0             | 0 0 0               | 0 0 0          | 0 0 1                   | 0 0 1                   |
| Diuron                                  | 4 0 1          | 1 2 0            | 2 1 0              | 0 0 2         | 4 0 1          | 2 0 2             | 1 0 1               | 1 0 0          | 1 0 0                   | 16 3 7                  |
| Glyphosate                              | 1 0 0          | 1 0 0            | 0 0 3              | 1 0 0         | 1 0 0          | 0 0 0             | 0 0 0               | 0 0 0          | 0 0 0                   | 4 0 3                   |
| Imidacloprid                            | 0 1 1          | 0 0 2            | 0 0 0              | 0 0 0         | 2 2 1          | 0 0 1             | 0 0 1               | 0 0 0          | 0 0 0                   | 2 3 6                   |
| Linuron                                 | 0 0 0          | 0 0 0            | 0 0 0              | 0 0 0         | 0 0 2          | 0 0 0             | 0 0 0               | 0 0 0          | 1 0 0                   | 1 0 2                   |
| Malathion                               | 0 0 0          | 0 0 0            | 0 0 1              | 0 0 4         | 0 0 0          | 0 0 0             | 0 0 0               | 0 0 0          | 0 0 0                   | 0 0 5                   |
| Metolachlor                             | 0 0 2          | 0 0 2            | 0 0 0              | 0 0 0         | 2 2 1          | 0 0 0             | 0 0 0               | 0 0 1          | 0 0 1                   | 2 2 7                   |
| Metsulfuron-methyl                      | 1 0 2          | 0 0 2            | 0 0 0              | 0 0 0         | 0 1 4          | 0 0 0             | 0 0 1               | 0 0 0          | 0 0 0                   | 1 1 9                   |
| Oxyfluorfen                             | 0 0 0          | 0 0 1            | 0 0 0              | 0 0 0         | 1 0 2          | 0 0 0             | 0 0 1               | 0 0 0          | 0 0 1                   | 1 0 5                   |
| Prometryn                               | 0 0 0          | 0 0 0            | 0 0 0              | 0 0 0         | 0 0 0          | 0 0 0             | 0 0 0               | 0 0 0          | 1 0 0                   | 1 0 0                   |
| Simazine                                | 0 0 4          | 0 2 1            | 0 0 1              | 0 0 2         | 4 0 1          | 2 0 1             | 0 0 0               | 1 0 0          | 0 0 0                   | 7 2 10                  |
| Sulfometuron methyl                     | 1 0 4          | 2 0 1            | 0 0 0              | 0 0 0         | 0 2 3          | 0 0 1             | 0 1 1               | 0 0 1          | 0 0 0                   | 3 3 11                  |
| <b>Totals</b>                           | <b>14 2 28</b> | <b>7 8 19</b>    | <b>3 2 13</b>      | <b>4 1 14</b> | <b>24 9 34</b> | <b>10 0 9</b>     | <b>1 1 8</b>        | <b>5 0 4</b>   | <b>3 0 4</b>            | <b>71 23 133</b>        |

**Table 60: Milestone status for PSP-02-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>              |
|---|---|----------------------------|
| <b>PSP-02.</b> 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 | <b>PSP-02-M1.</b> 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. | <b>Complete</b><br>12/2023 |

**PSP-02-M1 Description of Action/Milestone Status**

**PSP-02-R1.** Number of meetings attended and summaries delivered on monitoring results. Reported annually.

DEQ gave 14 data presentations to PSP groups across the state in calendar year 2023.

**Table 61: Milestone status for PSP-03-M1**

| <b>Actions</b>  | <b>Milestones</b>  | <b>Status</b>              |
|---|--|----------------------------|
| <b>PSP-03.</b> Provide technical assistance grants to PSP groups for the research and implementation of pesticide reduction strategies. | <b>PSP-03-M1.</b> Technical assistance grants awarded during each biennium | <b>Complete</b><br>06/2023 |

**PSP-03-M1 Description of Action/Milestone Status**

**PSP-03-R1.** Number of projects funded. Reported annually.

Nine technical assistance grants were awarded within 7 PSPs during the 2021-2023 biennium.

**PSP-03-R2.** Description of project objectives. Reported annually.

**Amazon**

Monitoring

Water quality data is being collected at several locations within the Long Tom Watershed (Amazon Creek) to assess the effectiveness of management measures designed to limit or eliminate pesticide residues detected in susceptible water bodies within rural, urban, industrial, and agricultural settings. These sample results are used to develop trends and inform stakeholders within the watershed as to impact various management measures have on pesticide residue concentrations on monitored water bodies.

Funds will also cover some staff time for PSP trainings and audits, Amazon PSP Coordination Council engagement, biannual data presentation to stakeholder groups, and the production of a written annual summary for partners and key stakeholders. These communication and coordination functions were identified as of highest priority by partners during strategic planning conversations.

#### Outreach and education

The Urban Waters & Wildlife Program will engage businesses in the Trout Friendly Landscape Program, providing them scientifically sound data on the health of their waters, and help them identify and implement water quality improvement solutions, followed up by identifying funding for implementation. Once the project is installed, marketing, and maintenance guidance will be provided for a minimum of 5 years post installation.

The Upper Willamette Working Lands Program (UWWLP) will work with agricultural operators in the Amazon basin to ensure they are aware of existing water quality conservation programs and provided them with initial technical assistance aimed at helping them take advantage of these opportunities. In addition to developing a targeted outreach and engagement campaign, the UWWLP will collaborate with the NRCS and SWCD to draft a new Conservation Implementation Strategy focused on water quality, assist in the development of a National Water Quality Initiative and lead the development of a Regional Conservation Partnership Program application designed to bring conservation infrastructure support to producers in the PSP geography.

#### **Hood River**

This project will allow for the collection, handling, and shipping of surface water samples collected in the Hood River Watershed PSP and delivered to the Oregon Department of Environmental Quality Laboratory. It is estimated that during the course of this agreement that at least 120 regular and QA/QC samples will be collected and submitted for analysis.

#### **Middle Rogue**

The Middle Rogue Pesticide Stewardship Partnership (MRPSP) plans on continuing regular sampling of water quality within Bear Creek Tributaries. In addition to sampling, the MRPSP will continue flow monitoring at the following sites that do not have nearby Oregon Water Resource Department Gauges or Staff Gauges.

The Jackson SWCD will also hold a Middle Rogue Integrated Pest Management Festival. The day-long event, targeting a broad, inclusive audience, will be comprised of:

1. A morning of lectures on the PSP, pesticide safety and risk assessment, and limiting risk of movement to surface water.
2. A set of afternoon hands-on demonstrations of sprayer calibration and best practices for low-risk pesticide applications.

Coffee, snacks, and lunch will be provided with a target attendance of 75 people. Event organization and logistics will be managed by OSU SOREC faculty. ODA Recertification credits will be available.

### **Middle Deschutes**

Jefferson SWCD Staff will travel to and collect water quality pesticide samples along with turbidity & stream flow throughout the irrigation seasons through 2023

### **Wasco**

Continue PSP sampling per the schedules provided by DEQ and propose the installation of two stream flow monitoring transducers and staff gauges. The monitoring locations are proposed for the lower end of the systems on Threemile Creek and Mill Creek.

### **Walla Walla**

The Walla Walla Basin Watershed Council (WWBWC) will target interested parties to reduce pesticides by producing outreach materials in the form of local factsheets for the Pesticides of Concern and the Pesticides of Interest (POI), which will be distributed to the local agricultural community. The WWBWC proposes to create a short PSP outreach/interested party video describing the program efforts and results. The WWBWC also proposes to create a Pesticide Uses and Risks Factsheet & Crop Production Calendar for the Walla Walla PSP area. The outreach materials will be available on the WWBWC website for distribution along with being available through interested party meetings. The WWBWC will attend and present the sampling results from monitoring efforts at the annual Blue Mountain Horticultural Society meeting. The WWBWC will cultivate additional Coordinating Council participation from interested agricultural organizations and communities.

### **Yamhill**

#### Stakeholder Engagement & Outreach

#### Annual Presentations

- GYWC staff and YSWCD staff (contracted) will coordinate annual community presentations for each of the two focus areas (Cozine Creek and Palmer Creek).
- To prepare for the annual community presentations, Yamhill PSP will meet with ODA / DEQ agency partners to review data results/graphs, and use this information to guide the development of the presentation content, including pesticide priorities and messaging for each focus area.

#### Targeted Stakeholder Engagement & Outreach

- GYWC staff and YSWCD staff (contracted) will conduct targeted stakeholder engagement and outreach to gain a better understanding of pesticide practices occurring in the 2 focus areas, and further development of relationships with key stakeholders to

better promote and support adoption of best management practices to reduce the risk of off-target pesticide movement and surface water loading by Commodity Type:

- Nursery (Monrovia, Palmer Creek Nursery, K&K)
- Hazelnut
- Grass seed Growers o Large-Scale Urban Landowners and Operators (Landscape Companies, Linfield College, Home Owner Associations).
- Local Governments (Yamhill County Public Works, City of McMinnville Public Works)
- Engagement may include individual meetings with key stakeholders to develop trust and understanding, as well as group meetings to engage in discussions and presentations with multiple users of similar / relevant pesticide uses and/or best management practice needs

**PSP-03-R3.** Project objectives accomplished. Reported annually.

Summary of key 2023 PSP grant activities:

- Integrated pest management trainings for landscapers within the Amazon PSP
- Outreach to key agricultural groups and Christmas tree growers and development of outreach/education videos on cover crops in the Clackamas PSP
- Promotion of best management practices for orchards and spray calibration workshops in the Hood River PSP
- Development of a 20-min outreach video and comprehensive factsheet on pesticide uses and risks and a crop production calendar tailored to the Walla Walla PSP basin
- Integrated pest management festival in the Middle Rogue PSP
- Creation of an ArcGIS Story Map on pesticide detections on local creeks and outreach to nurseries and nut growers industry in the Yamhill PSP.

**Table 62: Milestone status for PSP-04-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>              |
|--|---|----------------------------|
| <b>PSP-04</b> Sponsor waste collection events across the state to safely dispose of excess or banned chemicals and prevent them from entering any waterways. | <b>PSP-04-M1.</b> At least one waste collection event completed each year | <b>Complete</b><br>11/2023 |

**PSP-04-M1 Description of Action/Milestone Status**

**PSP-04-R1.** Number of collection events, amount collected and number of participants. Reported annually.

The PSP Program held 3 waste collection events throughout the year 2023 that included a total of 35 participants and collected 22,355 pounds of unused pesticides from around the state.

## 1.12 Nonpoint Source Program

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

**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.

**Table 63: Milestone status for NPS-02-M1**

| Action  | Milestone   | Status                     |
|---|---|----------------------------|
| <b>NPS-02/PPA-8.3.</b> Complete an annual nonpoint source report that describes the progress in implementing the State’s nonpoint source management program plan. | <b>NPS-02-M1.</b> Annually, DEQ submits the completed nonpoint source program annual report to EPA by May 30. | <b>Complete</b><br>05/2023 |

### NPS -02-M1 Description of Action/Milestone Status

**NPS -02-R1.** Date annual report submitted to EPA. Reported annually.

The 2022 NPS Annual Report was submitted to EPA on 05/31/2023.

**Table 64: Milestone status for NPS-03-M1**

| Actions  | Milestones  | Status          |
|--|---|-----------------|
| <b>NPS-03.</b> Best management practices and other strategies are implemented to reduce pollutant loading. | <b>NPS-03-M1.</b> Annually the count or amount of practices and management strategies that have been completed in each subbasin in Oregon is reported in the nonpoint source annual report. | <b>Complete</b> |

### NPS-03-M1 Description of Action/Milestone Status

**NPS-03-R1.** The annual count or amount of practices and management strategies implemented for each HUC8 subbasins. Reported annually.

See Appendix A of this report.

**Table 65: Milestone status for NPS-04-M1**

| <b>Actions</b>   | <b>Milestones</b>   | <b>Status</b>  |
|--|---|--|
| <b>NPS-04.</b> On an annual basis where data is available, complete an assessment of water quality status and trends in attaining water quality standards and instream TMDL targets. | <b>NPS-04-M1.</b> 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. | <b>Not Yet Complete</b><br>Expected completion date: 06/2024 |

**NPS-04-M1 Description of Action/Milestone Status**

The status and trends required significant updates due to changes in the Integrated Report methodology and the structure of TMDL target data. In response to comments, the Integrated Report updated the standard for which assessment unit status would be assessed and displayed. Additionally, DEQ completed the development of a TMDL database that provides the locations of TMDL targets across the state mapped in both the National Hydrography Dataset and Integrated Report Assessment geospatial units. This database will be continually updated until all TMDL targets are included. These updates along with other priorities and capacity issues led to a delay in publishing the status and trends report for 2023 and the report will be published in 06/2024.

**NPS-04-R1.** Identification of status and trend report finalized in odd numbered years. Reported in the 2023 and 2025 annual reports.

n/a

**Table 66: Milestone status for NPS-05-M1**

| <b>Actions</b>  | <b>Milestones</b>   | <b>Status</b>              |
|---|---|----------------------------|
| <b>NPS-05.</b> Determine with EPA available nonpoint source success stories documenting either water quality progress or attainment of water standards. | <b>NPS-05-M1.</b> Complete evaluation of potential success stories following completion of the Integrated Report. | <b>Complete</b><br>12/2023 |

**NPS-05-M1 Description of Action/Milestone Status**

**NPS-05-R1.** Summary describing status of evaluation and any success stories in development. Reported annually

Three potential success story candidates were identified across the state

1. Lower Willamette River bacteria delisting
2. Abernethy Creek bacteria delisting
3. NPS pollution control in Tenmile Lakes Basin on the Oregon South Coast

Capacity issues prevented the Lower Willamette and Abernethy Creek delistings to pursue success story submittal in 2023. There is no estimated timeline for those to be submitted as the capacity issues persist.

The Tenmile Lakes Basin success story was not submitted in 2023 but has potential for submission in 2024. The Tenmile Lakes Basin Partnership has been successfully implementing the voluntary aspects of the 2007 nutrient and sediment TMDLs in Tenmile Lakes. Their current priority is to locate, acquire, and restore wetlands adjacent to the outfalls of the major tributaries of Tenmile Lakes to reduce the sediment and nutrient loading that has been driving harmful algal blooms and water quality problems.

**Table 67: Milestone status for NPS-06-M1**

| <b>Actions</b>   | <b>Milestones</b>  | <b>Status</b>              |
|--|--|----------------------------|
| <b>NPS-06.</b> Update DEQ’s Freshwater Cyanobacteria Harmful Algal Bloom Strategy. | <b>NPS-06-M1.</b> Complete updated strategy by December 31, 2022 | <b>Complete</b><br>10/2023 |

**NPS-06-M1 Description of Action/Milestone Status**

**NPS-06-R1.** Date update to the Freshwater Cyanobacteria Harmful Algal Bloom Strategy was completed.

The Freshwater Cyanobacteria Harmful Algal Bloom Strategy was completed in 10/2023 and can be accessed at the following link:

<https://www.oregon.gov/deq/wq/Documents/habFwCyanobachABstrat.pdf>

## 1.13 Environmental justice efforts

### Environmental Justice Working Group

The Environmental Justice Working Group (EJWG) continues to push for increased knowledge, training, staff, and resources for the advancement of environmental justice work at the agency. In 2023, the EJWG completed an extensive cross media data inventory and gap analysis for environmental burden layers to recommend for inclusion in the Oregon EJ Mapping Tool as required by House Bill 4077. These recommendations will be given to the Environmental Justice Council (EJC) for its decision. In 2024, the EJC will conduct community outreach across the state while DEQ and the other assigned agencies will develop the tools methodology and support Oregon State University in developing the tool. The Oregon EJ Mapping Tool is expected to be completed in 2025.

The EJWG is also working internally to develop an EJ guidance document to help employees incorporate environmental justice into their work. This document is also intended to create more consistency in how the agency approaches environmental justice work across programs. There is currently no SOP for how the agency includes environmental justice into its work.



This group is also assisting in the development of new structure at DEQ. In 2023, the agency created a Diversity, Equity, and Inclusion division and hired an administrator. The EJWG has been working with the new administrator to develop position descriptions for the 3 vacant environmental justice positions that are expected to be hired in 2024.

## **Water Quality Nonpoint Source Programs**

### **319 Program**

Oregon DEQ is working with Tetra Tech through an EPA technical assistance project to review, analyze, and address potential barriers for engaging disadvantaged communities (DACs) in nonpoint source pollution management. This will support DEQ's effort to increase equitable NPS pollution management outcomes across the state. The project began in late 2023 and will be completed by summer of 2024.

A key deliverable from this project is a toolset to weigh both environmental justice and nonpoint source pollution variables. This toolset will be used by DEQ to prioritize involvement of disadvantaged communities within areas of existing Watershed Based Plans. We plan to use this toolset in conjunction with the NPS project application scoring/evaluation process. Additionally, the NPS project funding ranking evaluation form has been updated to incorporate environmental justice objectives into project scoring.

### **Drinking Water Protection**

The Drinking Water Protection Program has various projects in development to incorporate environmental justice into the program. One of these projects is the Small System Outreach Project. The overall goal of the project is to offer source water protection technical assistance, education, and capacity building to small drinking water system operators and community members, primarily of manufactured home communities.

As of May 2024, DEQ identified and contacted 223 small public water systems that are manufactured home communities statewide. Most of these outreach efforts consisted of emails or phone calls to the listed contact on the water system's page on Oregon Health Authority's Drinking Water Data Online. During the site visits, DEQ listened to drinking water concerns, discussed their Source Water Assessment and Update (if available), walked around their community to visualize potential contaminant sources, and talked about possible protection actions. This effort has already resulted in 56 manufactured home communities taking initial or substantial steps toward implantation of source water protection initiatives.

Additionally, the drinking water protection program is beginning to implement changes in how outreach to public water systems is prioritized by incorporating environmental justice screening tools to identify areas for engagement. In 2023 a priority list was compiled looking only at community public water systems. 42 ground water systems were selected that have not reached substantial implementation, that intersect with Ground Water Drinking Water Source Area Sensitivity Combined TOT High or High (Unknown) and are identified as disadvantaged by Justice40 criteria. Future new additions could include NTNC systems and water systems that are considered disadvantaged under the Oregon Health Authority's DWSRF criteria.

The Drinking Water Protection Program has also been establishing reoccurring gatherings for climate vulnerable coastal communities in Oregon. These gatherings have focused on coastal

land conservation topics with the goal to protect and restore drinking water source areas along Oregon's coast. DEQ will provide technical assistance and outreach as well as work to enhance community relationships. These spaces will also provide the opportunity to celebrate any source water protection efforts that communities have already done and to build upon those successes to enhance the capacity of neighboring communities. In addition, these spaces will provide a platform for communities to share their challenges and access resources, ideas, and partners to address those challenges.

DEQ and OHA are prioritizing disadvantaged communities for source water protection grants. For those projects considered eligible for funding, additional consideration will be given to disadvantaged communities as defined by OHA-DWS. The additional consideration will be in the form of 10 points that will be given to those eligible projects that were submitted by water systems from disadvantaged communities.



# Oregon Nonpoint Source Pollution Program Annual Report for 2023

## Appendix A: Actions Defined by the 2023 Nonpoint Source Management Plan

- TMDL-07. Other appropriate management strategies are implemented to reduce pollutant loading.
- TMDL-07-M1. Annually DEQ quantifies the count or amount of management strategies that have been completed within watersheds where TMDLs have been developed.
- TMDL-07-R1. The annual count or amount of management strategies implemented for each HUC8 subbasins with approved TMDLs. Reported annually.
- NPS-03. Best management practices and other strategies are implemented to reduce pollutant loading.
- NPS-03-M1. Annually the count or amount of practices and management strategies that have been completed in each subbasin in Oregon is reported in the nonpoint source annual report.
- NPS-03-R1. The annual count or amount of practices and management strategies implemented for each HUC8 subbasins. Reported annually.

| HUC8     | Subbasin            | TMDL in Subbasin | Activity                                   | Treatment Metric     | Unit              | Y2021  | Y2022 | Total  |
|----------|---------------------|------------------|--|----------------------|-------------------|--------|-------|--------|
| 17050103 | Middle Snake-Succor | TRUE             | Irrigation system improvement              | Area treated         | acre              | 32.0   | 85.0  | 117.0  |
| 17050108 | Jordan              | FALSE            | Irrigation system improvement              | Area treated         | acre              | 260.0  | 176.0 | 436.0  |
| 17050108 | Jordan              | FALSE            | Irrigation system improvement              | Length of treatment  | feet              | 1760   | 0     | 1760   |
| 17050108 | Jordan              | FALSE            | Riparian invasive plant control            | Area treated         | acre              | 4.0    | 0.0   | 4.0    |
| 17050108 | Jordan              | FALSE            | Riparian invasive plant control            | Length of treatment  | mile              | 0.01   | 0.00  | 0.01   |
| 17050108 | Jordan              | FALSE            | Upland invasive plant control              | Area treated         | acre              | 1295.5 | 597.4 | 1892.9 |
| 17050109 | Crooked-Rattlesnake | FALSE            | Grazing management                         | Area treated         | acre              | 640.0  | 0.0   | 640.0  |
| 17050109 | Crooked-Rattlesnake | FALSE            | Off-channel livestock or wildlife watering | Number of treatments | watering location | 3      | 0     | 3      |
| 17050109 | Crooked-Rattlesnake | FALSE            | Upland invasive plant control              | Area treated         | acre              | 640.0  | 0.0   | 640.0  |
| 17050109 | Crooked-Rattlesnake | FALSE            | Upland vegetation planting                 | Area treated         | acre              | 640.0  | 0.0   | 640.0  |

### Translation or other formats

| HUC8     | Subbasin             | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021  | Y2022 | Total  |
|----------|----------------------|------------------|---|----------------------|-------------------|--------|-------|--------|
| 17050110 | Lower Owyhee         | FALSE            | Irrigation system improvement                         | Area treated         | acre              | 80.0   | 89.3  | 169.3  |
| 17050115 | Middle Snake-Payette | TRUE             | Grazing management                                    | Area treated         | acre              | 324.0  | 524.0 | 848.0  |
| 17050115 | Middle Snake-Payette | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 100    | 0     | 100    |
| 17050115 | Middle Snake-Payette | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 100    | 0     | 100    |
| 17050115 | Middle Snake-Payette | TRUE             | Irrigation system improvement                         | Area treated         | acre              | 31.0   | 162.0 | 193.0  |
| 17050115 | Middle Snake-Payette | TRUE             | Livestock stream access/crossing created or improved  | Area treated         | acre              | 0.0    | 0.1   | 0.1    |
| 17050115 | Middle Snake-Payette | TRUE             | Livestock stream access/crossing created or improved  | Number of treatments | crossing          | 0      | 1     | 1      |
| 17050115 | Middle Snake-Payette | TRUE             | Off-channel livestock or wildlife watering            | Number of treatments | watering location | 3      | 4     | 7      |
| 17050115 | Middle Snake-Payette | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 0.0    | 13.0  | 13.0   |
| 17050115 | Middle Snake-Payette | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 0.00   | 0.93  | 0.93   |
| 17050115 | Middle Snake-Payette | TRUE             | Riparian vegetation planting                          | Area treated         | acre              | 0.0    | 13.0  | 13.0   |
| 17050115 | Middle Snake-Payette | TRUE             | Riparian vegetation planting                          | Length of treatment  | mile              | 0.00   | 0.93  | 0.93   |
| 17050115 | Middle Snake-Payette | TRUE             | Upland fencing  | Area treated         | acre              | 324.0  | 48.1  | 372.1  |
| 17050115 | Middle Snake-Payette | TRUE             | Upland fencing  | Length of treatment  | mile              | 0.00   | 1.59  | 1.59   |
| 17050115 | Middle Snake-Payette | TRUE             | Upland invasive plant control                         | Area treated         | acre              | 615.0  | 54.5  | 669.5  |
| 17050115 | Middle Snake-Payette | TRUE             | Upland vegetation management                          | Area treated         | acre              | 1417.0 | 0.0   | 1417.0 |
| 17050115 | Middle Snake-Payette | TRUE             | Upland vegetation planting                            | Area treated         | acre              | 170.0  | 532.5 | 702.5  |
| 17050115 | Middle Snake-Payette | TRUE             | Water gap development                                 | Area treated         | acre              | 0.0    | 0.5   | 0.5    |

| HUC8     | Subbasin             | TMDL in Subbasin | Activity   | Treatment Metric     | Unit              | Y2021  | Y2022  | Total  |
|----------|----------------------|------------------|--|----------------------|-------------------|--------|--------|--------|
| 17050115 | Middle Snake-Payette | TRUE             | Water gap development                            | Number of treatments | watergap          | 0      | 4      | 4      |
| 17050116 | Upper Malheur        | TRUE             | Grazing management                               | Area treated         | acre              | 0.0    | 3269.0 | 3269.0 |
| 17050116 | Upper Malheur        | TRUE             | Off-channel livestock or wildlife watering       | Number of treatments | watering location | 0      | 4      | 4      |
| 17050116 | Upper Malheur        | TRUE             | Upland fencing                                   | Area treated         | acre              | 0.0    | 1.0    | 1.0    |
| 17050116 | Upper Malheur        | TRUE             | Upland fencing                                   | Length of treatment  | mile              | 0.00   | 0.12   | 0.12   |
| 17050116 | Upper Malheur        | TRUE             | Upland vegetation management                     | Area treated         | acre              | 0.0    | 2534.0 | 2534.0 |
| 17050116 | Upper Malheur        | TRUE             | Upland vegetation planting                       | Area treated         | acre              | 0.0    | 129.0  | 129.0  |
| 17050117 | Lower Malheur        | TRUE             | Irrigation system improvement                    | Area treated         | acre              | 286.0  | 545.0  | 831.0  |
| 17050117 | Lower Malheur        | TRUE             | Irrigation system improvement                    | Length of treatment  | feet              | 1800   | 6860   | 8660   |
| 17050117 | Lower Malheur        | TRUE             | Off-channel livestock or wildlife watering       | Number of treatments | watering location | 1      | 0      | 1      |
| 17050117 | Lower Malheur        | TRUE             | Upland invasive plant control                    | Area treated         | acre              | 0.0    | 65.0   | 65.0   |
| 17050118 | Bully                | TRUE             | Off-channel livestock or wildlife watering       | Number of treatments | watering location | 0      | 4      | 4      |
| 17050118 | Bully                | TRUE             | Upland fencing                                   | Area treated         | acre              | 1520.0 | 12.5   | 1532.5 |
| 17050119 | Willow               | TRUE             | Engineered structures                            | Number of treatments | structure         | 0      | 19     | 19     |
| 17050119 | Willow               | TRUE             | Instream habitat (anchored): Structure placement | Number of treatments | structure         | 0      | 30     | 30     |
| 17050119 | Willow               | TRUE             | Irrigation system improvement                    | Area treated         | acre              | 0.0    | 58.0   | 58.0   |
| 17050119 | Willow               | TRUE             | Riparian tree planting                           | Area treated         | acre              | 0.0    | 7.0    | 7.0    |
| 17050119 | Willow               | TRUE             | Riparian tree planting                           | Length of treatment  | mile              | 0.00   | 0.60   | 0.60   |
| 17050201 | Brownlee Reservoir   | TRUE             | Irrigation system improvement                    | Area treated         | acre              | 120.0  | 20.0   | 140.0  |
| 17050201 | Brownlee Reservoir   | TRUE             | Irrigation system improvement                    | Length of treatment  | feet              | 570    | 700    | 1270   |

| HUC8     | Subbasin           | TMDL in Subbasin | Activity                                   | Treatment Metric     | Unit              | Y2021  | Y2022  | Total  |
|----------|--------------------|------------------|--|----------------------|-------------------|--------|--------|--------|
| 17050201 | Brownlee Reservoir | TRUE             | Off-channel livestock or wildlife watering | Number of treatments | watering location | 3      | 0      | 3      |
| 17050202 | Burnt              | FALSE            | Riparian invasive plant control            | Area treated         | acre              | 150.0  | 0.0    | 150.0  |
| 17050202 | Burnt              | FALSE            | Riparian invasive plant control            | Length of treatment  | mile              | 15.00  | 0.00   | 15.00  |
| 17050202 | Burnt              | FALSE            | Upland invasive plant control              | Area treated         | acre              | 2579.0 | 1318.0 | 3897.0 |
| 17050203 | Powder             | TRUE             | Grazing management                         | Area treated         | acre              | 1000.0 | 0.0    | 1000.0 |
| 17050203 | Powder             | TRUE             | Irrigation system improvement              | Area treated         | acre              | 0.0    | 97.0   | 97.0   |
| 17050203 | Powder             | TRUE             | Off-channel livestock or wildlife watering | Number of treatments | watering location | 0      | 2      | 2      |
| 17050203 | Powder             | TRUE             | Riparian invasive plant control            | Area treated         | acre              | 10.0   | 0.0    | 10.0   |
| 17050203 | Powder             | TRUE             | Riparian invasive plant control            | Length of treatment  | mile              | 1.00   | 0.00   | 1.00   |
| 17050203 | Powder             | TRUE             | Upland fencing                             | Area treated         | acre              | 500.0  | 2000.0 | 2500.0 |
| 17050203 | Powder             | TRUE             | Upland fencing                             | Length of treatment  | mile              | 0.00   | 2.00   | 2.00   |
| 17050203 | Powder             | TRUE             | Upland invasive plant control              | Area treated         | acre              | 3111.1 | 1808.0 | 4919.1 |
| 17050203 | Powder             | TRUE             | Upland vegetation management               | Area treated         | acre              | 0.0    | 400.0  | 400.0  |
| 17050203 | Powder             | TRUE             | Upland vegetation planting                 | Area treated         | acre              | 1024.0 | 400.0  | 1424.0 |
| 17060101 | Hells Canyon       | TRUE             | Upland invasive plant control              | Area treated         | acre              | 0.0    | 261.3  | 261.3  |
| 17060102 | Imnaha             | TRUE             | Riparian invasive plant control            | Area treated         | acre              | 3.2    | 0.0    | 3.2    |
| 17060102 | Imnaha             | TRUE             | Riparian invasive plant control            | Length of treatment  | mile              | 2.00   | 0.00   | 2.00   |
| 17060102 | Imnaha             | TRUE             | Upland invasive plant control              | Area treated         | acre              | 1453.3 | 0.0    | 1453.3 |
| 17060104 | Upper Grande Ronde | TRUE             | Bank stabilization                         | Length of treatment  | mile              | 0.88   | 0.02   | 0.90   |
| 17060104 | Upper Grande Ronde | TRUE             | Channel alteration                         | Length of treatment  | feet              | 2850   | 0      | 2850   |
| 17060104 | Upper Grande Ronde | TRUE             | Channel alteration                         | Number of treatments | main channel      | 1      | 0      | 1      |
| 17060104 | Upper Grande Ronde | TRUE             | Channel alteration                         | Number of treatments | pool              | 21     | 1      | 22     |

| HUC8     | Subbasin           | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022 | Total |
|----------|--------------------|------------------|---|----------------------|-------------------|-------|-------|-------|
| 17060104 | Upper Grande Ronde | TRUE             | Instream habitat (anchored): Structure placement      | Number of treatments | structure         | 141   | 0     | 141   |
| 17060104 | Upper Grande Ronde | TRUE             | Instream habitat (not anchored): Boulder placement    | Number of treatments | boulder           | 360   | 0     | 360   |
| 17060104 | Upper Grande Ronde | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 99    | 111   | 210   |
| 17060104 | Upper Grande Ronde | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log | 103   | 106   | 209   |
| 17060104 | Upper Grande Ronde | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 45    | 11    | 56    |
| 17060104 | Upper Grande Ronde | TRUE             | Non-crossing improvement                              | Number of treatments | fish ladder       | 0     | 1     | 1     |
| 17060104 | Upper Grande Ronde | TRUE             | Off-channel habitat                                   | Length of treatment  | feet              | 7250  | 0     | 7250  |
| 17060104 | Upper Grande Ronde | TRUE             | Off-channel habitat                                   | Number of treatments | alcove            | 3     | 0     | 3     |
| 17060104 | Upper Grande Ronde | TRUE             | Off-channel habitat                                   | Number of treatments | side channel      | 5     | 0     | 5     |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian fencing                                      | Area treated         | acre              | 41.8  | 0.2   | 42.0  |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian fencing                                      | Length of treatment  | mile              | 1.00  | 0.25  | 1.25  |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 43.7  | 0.0   | 43.7  |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 22.00 | 0.00  | 22.00 |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian tree planting                                | Area treated         | acre              | 0.1   | 0.2   | 0.3   |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian tree planting                                | Length of treatment  | mile              | 0.05  | 0.25  | 0.30  |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian vegetation planting                          | Area treated         | acre              | 15.0  | 0.2   | 15.2  |
| 17060104 | Upper Grande Ronde | TRUE             | Riparian vegetation planting                          | Length of treatment  | mile              | 0.50  | 0.25  | 0.75  |
| 17060104 | Upper Grande Ronde | TRUE             | Upland fencing  | Area treated         | acre              | 1.1   | 0.0   | 1.1   |

| HUC8     | Subbasin                    | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021  | Y2022  | Total  |
|----------|-----------------------------|------------------|---|----------------------|-------------------|--------|--------|--------|
| 17060104 | Upper Grande Ronde          | TRUE             | Upland invasive plant control                         | Area treated         | acre              | 406.8  | 2004.0 | 2410.8 |
| 17060105 | Wallowa                     | TRUE             | Channel alteration                                    | Length of treatment  | feet              | 1500   | 0      | 1500   |
| 17060105 | Wallowa                     | TRUE             | Channel alteration                                    | Number of treatments | main channel      | 1      | 0      | 1      |
| 17060105 | Wallowa                     | TRUE             | Instream habitat (not anchored): Boulder placement    | Number of treatments | boulder           | 200    | 0      | 200    |
| 17060105 | Wallowa                     | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 20     | 0      | 20     |
| 17060105 | Wallowa                     | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log | 20     | 0      | 20     |
| 17060105 | Wallowa                     | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 5      | 0      | 5      |
| 17060105 | Wallowa                     | TRUE             | Off-channel habitat                                   | Length of treatment  | feet              | 1350   | 0      | 1350   |
| 17060105 | Wallowa                     | TRUE             | Off-channel habitat                                   | Number of treatments | alcove            | 2      | 0      | 2      |
| 17060105 | Wallowa                     | TRUE             | Off-channel habitat                                   | Number of treatments | side channel      | 3      | 0      | 3      |
| 17060105 | Wallowa                     | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 126.0  | 0.0    | 126.0  |
| 17060105 | Wallowa                     | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 20.82  | 0.00   | 20.82  |
| 17060105 | Wallowa                     | TRUE             | Riparian vegetation planting                          | Area treated         | acre              | 2.0    | 0.0    | 2.0    |
| 17060105 | Wallowa                     | TRUE             | Riparian vegetation planting                          | Length of treatment  | mile              | 0.30   | 0.00   | 0.30   |
| 17060105 | Wallowa                     | TRUE             | Upland invasive plant control                         | Area treated         | acre              | 1133.4 | 0.0    | 1133.4 |
| 17060105 | Wallowa                     | TRUE             | Wetland vegetation planting                           | Area treated         | acre              | 1.0    | 0.0    | 1.0    |
| 17060106 | Lower Grande Ronde          | TRUE             | Upland invasive plant control                         | Area treated         | acre              | 1376.0 | 27.4   | 1403.4 |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 29.0   | 0.0    | 29.0   |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 3.00   | 0.00   | 3.00   |



| HUC8     | Subbasin                    | TMDL in Subbasin | Activity   | Treatment Metric     | Unit              | Y2021 | Y2022 | Total |
|----------|-----------------------------|------------------|--|----------------------|-------------------|-------|-------|-------|
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Riparian vegetation planting                     | Area treated         | acre              | 28.0  | 0.0   | 28.0  |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Riparian vegetation planting                     | Length of treatment  | mile              | 1.00  | 0.00  | 1.00  |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Upland invasive plant control                    | Area treated         | acre              | 82.0  | 0.0   | 82.0  |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Upland vegetation planting                       | Area treated         | acre              | 30.0  | 0.0   | 30.0  |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Wetland improvement                              | Area treated         | acre              | 65.5  | 0.0   | 65.5  |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Wetland invasive plant control                   | Area treated         | acre              | 40.0  | 0.0   | 40.0  |
| 17070101 | Middle Columbia-Lake Wallua | TRUE             | Wetland vegetation planting                      | Area treated         | acre              | 40.0  | 0.0   | 40.0  |
| 17070102 | Walla Walla                 | TRUE             | Bank stabilization                               | Length of treatment  | mile              | 0.00  | 0.10  | 0.10  |
| 17070102 | Walla Walla                 | TRUE             | Channel alteration                               | Length of treatment  | feet              | 0     | 200   | 200   |
| 17070102 | Walla Walla                 | TRUE             | Channel alteration                               | Number of treatments | main channel      | 0     | 1     | 1     |
| 17070102 | Walla Walla                 | TRUE             | Instream habitat (anchored): Structure placement | Number of treatments | structure         | 0     | 7     | 7     |
| 17070102 | Walla Walla                 | TRUE             | Off-channel habitat                              | Length of treatment  | feet              | 0     | 517   | 517   |
| 17070102 | Walla Walla                 | TRUE             | Off-channel habitat                              | Number of treatments | side channel      | 0     | 3     | 3     |
| 17070102 | Walla Walla                 | TRUE             | Upland invasive plant control                    | Area treated         | acre              | 4.0   | 15.1  | 19.1  |
| 17070104 | Willow                      | TRUE             | Nutrient/manure management                       | Area treated         | acre              | 0.0   | 0.0   | 0.0   |
| 17070104 | Willow                      | TRUE             | Off-channel livestock or wildlife watering       | Number of treatments | watering location | 3     | 16    | 19    |
| 17070104 | Willow                      | TRUE             | Riparian fencing                                 | Area treated         | acre              | 13.0  | 0.0   | 13.0  |
| 17070104 | Willow                      | TRUE             | Riparian fencing                                 | Length of treatment  | mile              | 0.14  | 0.00  | 0.14  |
| 17070104 | Willow                      | TRUE             | Riparian tree planting                           | Area treated         | acre              | 1.0   | 0.0   | 1.0   |
| 17070104 | Willow                      | TRUE             | Riparian tree planting                           | Length of treatment  | mile              | 0.14  | 0.00  | 0.14  |

| HUC8     | Subbasin             | TMDL in Subbasin | Activity  | Treatment Metric     | Unit             | Y2021 | Y2022 | Total |
|----------|----------------------|------------------|---|----------------------|------------------|-------|-------|-------|
| 17070104 | Willow               | TRUE             | Upland invasive plant control                         | Area treated         | acre             | 42.0  | 0.0   | 42.0  |
| 17070105 | Middle Columbia-Hood | TRUE             | Engineered structures                                 | Number of treatments | structure        | 4     | 0     | 4     |
| 17070105 | Middle Columbia-Hood | TRUE             | Instream habitat (anchored): Structure placement      | Number of treatments | structure        | 7     | 0     | 7     |
| 17070105 | Middle Columbia-Hood | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log    | 36    | 0     | 36    |
| 17070105 | Middle Columbia-Hood | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure        | 6     | 0     | 6     |
| 17070105 | Middle Columbia-Hood | TRUE             | Instream invasive plant control                       | Length of treatment  | mile             | 2.82  | 0.00  | 2.82  |
| 17070105 | Middle Columbia-Hood | TRUE             | Irrigation system improvement                         | Area treated         | acre             | 6.9   | 60.4  | 67.3  |
| 17070105 | Middle Columbia-Hood | TRUE             | Off-channel habitat                                   | Length of treatment  | feet             | 1600  | 0     | 1600  |
| 17070105 | Middle Columbia-Hood | TRUE             | Off-channel habitat                                   | Number of treatments | off-channel pond | 4     | 0     | 4     |
| 17070105 | Middle Columbia-Hood | TRUE             | Off-channel habitat                                   | Number of treatments | side channel     | 3     | 0     | 3     |
| 17070105 | Middle Columbia-Hood | TRUE             | Riparian fencing                                      | Area treated         | acre             | 18.0  | 0.0   | 18.0  |
| 17070105 | Middle Columbia-Hood | TRUE             | Riparian fencing                                      | Length of treatment  | mile             | 0.30  | 0.00  | 0.30  |
| 17070105 | Middle Columbia-Hood | TRUE             | Riparian invasive plant control                       | Area treated         | acre             | 5.0   | 0.0   | 5.0   |
| 17070105 | Middle Columbia-Hood | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile             | 0.20  | 0.00  | 0.20  |

| HUC8     | Subbasin             | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022 | Total |
|----------|----------------------|------------------|---|----------------------|-------------------|-------|-------|-------|
| 17070105 | Middle Columbia-Hood | TRUE             | Riparian vegetation planting                          | Area treated         | acre              | 5.0   | 0.0   | 5.0   |
| 17070105 | Middle Columbia-Hood | TRUE             | Riparian vegetation planting                          | Length of treatment  | mile              | 0.20  | 0.00  | 0.20  |
| 17070105 | Middle Columbia-Hood | TRUE             | Wetland invasive plant control                        | Area treated         | acre              | 0.5   | 0.0   | 0.5   |
| 17070201 | Upper John Day       | TRUE             | Crossing improvement                                  | Number of treatments | culvert           | 2     | 1     | 3     |
| 17070201 | Upper John Day       | TRUE             | Fish screening  | Number of treatments | fish screen       | 3     | 0     | 3     |
| 17070201 | Upper John Day       | TRUE             | Grazing management                                    | Area treated         | acre              | 0.0   | 15.0  | 15.0  |
| 17070201 | Upper John Day       | TRUE             | Instream habitat (anchored): Structure placement      | Number of treatments | structure         | 0     | 76    | 76    |
| 17070201 | Upper John Day       | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 32    | 0     | 32    |
| 17070201 | Upper John Day       | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 8     | 0     | 8     |
| 17070201 | Upper John Day       | TRUE             | Irrigation system improvement                         | Area treated         | acre              | 0.0   | 8.7   | 8.7   |
| 17070201 | Upper John Day       | TRUE             | Irrigation system improvement                         | Length of treatment  | feet              | 0     | 650   | 650   |
| 17070201 | Upper John Day       | TRUE             | Non-crossing improvement                              | Number of treatments | push-up dam       | 2     | 0     | 2     |
| 17070201 | Upper John Day       | TRUE             | Off-channel livestock or wildlife watering            | Number of treatments | watering location | 2     | 5     | 7     |
| 17070201 | Upper John Day       | TRUE             | Riparian fencing                                      | Area treated         | acre              | 55.8  | 17.3  | 73.2  |
| 17070201 | Upper John Day       | TRUE             | Riparian fencing                                      | Length of treatment  | mile              | 1.92  | 1.00  | 2.92  |
| 17070201 | Upper John Day       | TRUE             | Riparian tree planting                                | Area treated         | acre              | 43.6  | 17.3  | 61.0  |
| 17070201 | Upper John Day       | TRUE             | Riparian tree planting                                | Length of treatment  | mile              | 1.12  | 1.00  | 2.12  |
| 17070201 | Upper John Day       | TRUE             | Riparian vegetation management                        | Area treated         | acre              | 20.0  | 0.0   | 20.0  |

| HUC8     | Subbasin            | TMDL in Subbasin | Activity  | Treatment Metric     | Unit                   | Y2021 | Y2022 | Total |
|----------|---------------------|------------------|---|----------------------|------------------------|-------|-------|-------|
| 17070201 | Upper John Day      | TRUE             | Riparian vegetation management                        | Length of treatment  | mile                   | 1.12  | 0.00  | 1.12  |
| 17070201 | Upper John Day      | TRUE             | Upland vegetation management                          | Area treated         | acre                   | 180.0 | 350.0 | 530.0 |
| 17070202 | North Fork John Day | TRUE             | Bank stabilization                                    | Length of treatment  | mile                   | 0.08  | 0.00  | 0.08  |
| 17070202 | North Fork John Day | TRUE             | Bank stabilization                                    | Number of treatments | side                   | 2     | 0     | 2     |
| 17070202 | North Fork John Day | TRUE             | Crossing improvement                                  | Number of treatments | bridge                 | 1     | 0     | 1     |
| 17070202 | North Fork John Day | TRUE             | Crossing improvement                                  | Number of treatments | ford                   | 2     | 0     | 2     |
| 17070202 | North Fork John Day | TRUE             | Fish screening  | Number of treatments | fish screen            | 0     | 1     | 1     |
| 17070202 | North Fork John Day | TRUE             | Instream habitat (anchored): Structure placement      | Number of treatments | structure              | 261   | 4     | 265   |
| 17070202 | North Fork John Day | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log          | 358   | 1000  | 1358  |
| 17070202 | North Fork John Day | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log      | 56    | 0     | 56    |
| 17070202 | North Fork John Day | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure              | 118   | 204   | 322   |
| 17070202 | North Fork John Day | TRUE             | Non-crossing improvement                              | Number of treatments | barrier bypass/fis hwy | 0     | 1     | 1     |
| 17070202 | North Fork John Day | TRUE             | Non-crossing improvement                              | Number of treatments | diversion dam          | 0     | 1     | 1     |
| 17070202 | North Fork John Day | TRUE             | Off-channel habitat                                   | Length of treatment  | feet                   | 3334  | 0     | 3334  |
| 17070202 | North Fork John Day | TRUE             | Off-channel habitat                                   | Number of treatments | alcove                 | 2     | 0     | 2     |
| 17070202 | North Fork John Day | TRUE             | Off-channel habitat                                   | Number of treatments | side channel           | 11    | 0     | 11    |
| 17070202 | North Fork John Day | TRUE             | Riparian fencing                                      | Area treated         | acre                   | 85.3  | 0.0   | 85.3  |
| 17070202 | North Fork John Day | TRUE             | Riparian fencing                                      | Length of treatment  | mile                   | 1.63  | 0.00  | 1.63  |

| HUC8     | Subbasin             | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022   | Total   |
|----------|----------------------|------------------|---|----------------------|-------------------|-------|---------|---------|
| 17070202 | North Fork John Day  | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 43.5  | 0.0     | 43.5    |
| 17070202 | North Fork John Day  | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 9.91  | 0.00    | 9.91    |
| 17070202 | North Fork John Day  | TRUE             | Riparian tree planting                                | Area treated         | acre              | 7.1   | 12.0    | 19.1    |
| 17070202 | North Fork John Day  | TRUE             | Riparian tree planting                                | Length of treatment  | mile              | 1.12  | 1.80    | 2.92    |
| 17070202 | North Fork John Day  | TRUE             | Riparian vegetation management                        | Area treated         | acre              | 28.3  | 0.0     | 28.3    |
| 17070202 | North Fork John Day  | TRUE             | Riparian vegetation management                        | Length of treatment  | mile              | 0.53  | 0.00    | 0.53    |
| 17070202 | North Fork John Day  | TRUE             | Upland fencing  | Area treated         | acre              | 0.0   | 15000.0 | 15000.0 |
| 17070202 | North Fork John Day  | TRUE             | Upland fencing  | Length of treatment  | mile              | 0.00  | 5.00    | 5.00    |
| 17070202 | North Fork John Day  | TRUE             | Upland invasive plant control                         | Area treated         | acre              | 0.5   | 0.0     | 0.5     |
| 17070202 | North Fork John Day  | TRUE             | Upland vegetation management                          | Area treated         | acre              | 108.8 | 0.0     | 108.8   |
| 17070202 | North Fork John Day  | TRUE             | Wetland improvement                                   | Area treated         | acre              | 1.7   | 0.0     | 1.7     |
| 17070202 | North Fork John Day  | TRUE             | Wetland invasive plant control                        | Area treated         | acre              | 3.3   | 0.0     | 3.3     |
| 17070202 | North Fork John Day  | TRUE             | Wetland vegetation planting                           | Area treated         | acre              | 2.1   | 0.0     | 2.1     |
| 17070203 | Middle Fork John Day | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 225   | 0       | 225     |
| 17070203 | Middle Fork John Day | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 45    | 0       | 45      |
| 17070203 | Middle Fork John Day | TRUE             | Non-crossing improvement                              | Number of treatments | structure         | 1     | 0       | 1       |
| 17070203 | Middle Fork John Day | TRUE             | Off-channel habitat                                   | Length of treatment  | feet              | 1000  | 0       | 1000    |
| 17070203 | Middle Fork John Day | TRUE             | Off-channel habitat                                   | Number of treatments | side channel      | 15    | 0       | 15      |
| 17070203 | Middle Fork John Day | TRUE             | Off-channel livestock or wildlife watering            | Number of treatments | watering location | 0     | 2       | 2       |
| 17070203 | Middle Fork John Day | TRUE             | Riparian fencing                                      | Area treated         | acre              | 61.6  | 77.0    | 138.6   |

| HUC8     | Subbasin             | TMDL in Subbasin | Activity   | Treatment Metric     | Unit              | Y2021 | Y2022 | Total |
|----------|----------------------|------------------|--|----------------------|-------------------|-------|-------|-------|
| 17070203 | Middle Fork John Day | TRUE             | Riparian fencing                                 | Length of treatment  | mile              | 3.88  | 1.52  | 5.40  |
| 17070203 | Middle Fork John Day | TRUE             | Riparian invasive plant control                  | Area treated         | acre              | 0.0   | 8.0   | 8.0   |
| 17070203 | Middle Fork John Day | TRUE             | Riparian invasive plant control                  | Length of treatment  | mile              | 0.00  | 1.00  | 1.00  |
| 17070203 | Middle Fork John Day | TRUE             | Riparian tree planting                           | Area treated         | acre              | 0.0   | 86.0  | 86.0  |
| 17070203 | Middle Fork John Day | TRUE             | Riparian tree planting                           | Length of treatment  | mile              | 0.00  | 2.52  | 2.52  |
| 17070203 | Middle Fork John Day | TRUE             | Riparian vegetation planting                     | Area treated         | acre              | 8.0   | 77.0  | 85.0  |
| 17070203 | Middle Fork John Day | TRUE             | Riparian vegetation planting                     | Length of treatment  | mile              | 0.80  | 1.52  | 2.32  |
| 17070203 | Middle Fork John Day | TRUE             | Upland fencing                                   | Area treated         | acre              | 632.1 | 0.1   | 632.2 |
| 17070203 | Middle Fork John Day | TRUE             | Upland invasive plant control                    | Area treated         | acre              | 38.0  | 20.0  | 58.0  |
| 17070203 | Middle Fork John Day | TRUE             | Upland vegetation management                     | Area treated         | acre              | 0.0   | 209.0 | 209.0 |
| 17070204 | Lower John Day       | TRUE             | Instream habitat (anchored): Structure placement | Number of treatments | structure         | 370   | 0     | 370   |
| 17070204 | Lower John Day       | TRUE             | Off-channel livestock or wildlife watering       | Number of treatments | watering location | 5     | 14    | 19    |
| 17070204 | Lower John Day       | TRUE             | Riparian fencing                                 | Area treated         | acre              | 322.0 | 0.0   | 322.0 |
| 17070204 | Lower John Day       | TRUE             | Riparian fencing                                 | Length of treatment  | mile              | 5.03  | 0.00  | 5.03  |
| 17070204 | Lower John Day       | TRUE             | Riparian invasive plant control                  | Area treated         | acre              | 0.0   | 1.2   | 1.2   |
| 17070204 | Lower John Day       | TRUE             | Riparian invasive plant control                  | Length of treatment  | mile              | 0.00  | 3.00  | 3.00  |
| 17070204 | Lower John Day       | TRUE             | Riparian vegetation management                   | Area treated         | acre              | 0.0   | 93.0  | 93.0  |
| 17070204 | Lower John Day       | TRUE             | Riparian vegetation management                   | Length of treatment  | mile              | 0.00  | 4.00  | 4.00  |
| 17070204 | Lower John Day       | TRUE             | Terracing  | Area treated         | acre              | 0.0   | 401.8 | 401.8 |
| 17070204 | Lower John Day       | TRUE             | Terracing  | Length of treatment  | feet              | 0     | 10158 | 10158 |
| 17070204 | Lower John Day       | TRUE             | Terracing  | Number of treatments | terrace           | 0     | 14    | 14    |

| HUC8     | Subbasin         | TMDL in Subbasin | Activity   | Treatment Metric     | Unit                         | Y2021 | Y2022  | Total  |
|----------|------------------|------------------|--|----------------------|------------------------------|-------|--------|--------|
| 17070204 | Lower John Day   | TRUE             | Upland fencing                                     | Area treated         | acre                         | 0.0   | 687.1  | 687.1  |
| 17070204 | Lower John Day   | TRUE             | Upland fencing                                     | Length of treatment  | mile                         | 0.00  | 0.26   | 0.26   |
| 17070204 | Lower John Day   | TRUE             | Upland invasive plant control                      | Area treated         | acre                         | 398.4 | 485.5  | 883.9  |
| 17070204 | Lower John Day   | TRUE             | Upland vegetation management                       | Area treated         | acre                         | 26.0  | 1651.0 | 1677.0 |
| 17070204 | Lower John Day   | TRUE             | Upland vegetation planting                         | Area treated         | acre                         | 0.0   | 350.0  | 350.0  |
| 17070204 | Lower John Day   | TRUE             | Water/sediment control basins                      | Area treated         | acre                         | 0.0   | 583.2  | 583.2  |
| 17070204 | Lower John Day   | TRUE             | Water/sediment control basins                      | Number of treatments | water/sediment control basin | 0     | 19     | 19     |
| 17070301 | Upper Deschutes  | FALSE            | Bank stabilization                                 | Length of treatment  | mile                         | 0.00  | 0.13   | 0.13   |
| 17070301 | Upper Deschutes  | FALSE            | Fish screening                                     | Number of treatments | fish screen                  | 1     | 0      | 1      |
| 17070301 | Upper Deschutes  | FALSE            | Instream habitat (not anchored): Boulder placement | Number of treatments | boulder                      | 0     | 75     | 75     |
| 17070301 | Upper Deschutes  | FALSE            | Non-crossing improvement                           | Number of treatments | diversion dam                | 1     | 0      | 1      |
| 17070301 | Upper Deschutes  | FALSE            | Non-crossing improvement                           | Number of treatments | structure                    | 0     | 1      | 1      |
| 17070301 | Upper Deschutes  | FALSE            | Riparian fencing                                   | Area treated         | acre                         | 0.0   | 0.7    | 0.7    |
| 17070301 | Upper Deschutes  | FALSE            | Riparian fencing                                   | Length of treatment  | mile                         | 0.00  | 0.13   | 0.13   |
| 17070301 | Upper Deschutes  | FALSE            | Riparian invasive plant control                    | Area treated         | acre                         | 4.0   | 0.0    | 4.0    |
| 17070301 | Upper Deschutes  | FALSE            | Riparian invasive plant control                    | Length of treatment  | mile                         | 0.10  | 0.00   | 0.10   |
| 17070301 | Upper Deschutes  | FALSE            | Riparian vegetation planting                       | Area treated         | acre                         | 0.2   | 0.7    | 0.9    |
| 17070301 | Upper Deschutes  | FALSE            | Riparian vegetation planting                       | Length of treatment  | mile                         | 0.12  | 0.13   | 0.25   |
| 17070301 | Upper Deschutes  | FALSE            | Upland invasive plant control                      | Area treated         | acre                         | 158.9 | 2479.0 | 2637.9 |
| 17070301 | Upper Deschutes  | FALSE            | Upland vegetation planting                         | Area treated         | acre                         | 0.0   | 2479.0 | 2479.0 |
| 17070302 | Little Deschutes | FALSE            | Upland fencing                                     | Area treated         | acre                         | 2.0   | 0.0    | 2.0    |

| HUC8     | Subbasin         | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022   | Total   |
|----------|------------------|------------------|---|----------------------|-------------------|-------|---------|---------|
| 17070302 | Little Deschutes | FALSE            | Upland invasive plant control                         | Area treated         | acre              | 0.0   | 14872.0 | 14872.0 |
| 17070302 | Little Deschutes | FALSE            | Upland vegetation planting                            | Area treated         | acre              | 0.0   | 14872.0 | 14872.0 |
| 17070304 | Upper Crooked    | FALSE            | Upland invasive plant control                         | Area treated         | acre              | 42.5  | 16.8    | 59.3    |
| 17070305 | Lower Crooked    | FALSE            | Bank stabilization                                    | Length of treatment  | mile              | 0.00  | 0.06    | 0.06    |
| 17070305 | Lower Crooked    | FALSE            | Channel alteration                                    | Length of treatment  | feet              | 0     | 4920    | 4920    |
| 17070305 | Lower Crooked    | FALSE            | Channel alteration                                    | Number of treatments | main channel      | 0     | 2       | 2       |
| 17070305 | Lower Crooked    | FALSE            | Engineered structures                                 | Number of treatments | structure         | 0     | 3       | 3       |
| 17070305 | Lower Crooked    | FALSE            | Fish screening  | Number of treatments | fish screen       | 0     | 1       | 1       |
| 17070305 | Lower Crooked    | FALSE            | Instream habitat (anchored): Structure placement      | Number of treatments | structure         | 0     | 12      | 12      |
| 17070305 | Lower Crooked    | FALSE            | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 0     | 500     | 500     |
| 17070305 | Lower Crooked    | FALSE            | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log | 0     | 1200    | 1200    |
| 17070305 | Lower Crooked    | FALSE            | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 0     | 49      | 49      |
| 17070305 | Lower Crooked    | FALSE            | Irrigation system improvement                         | Area treated         | acre              | 32.2  | 91.0    | 123.2   |
| 17070305 | Lower Crooked    | FALSE            | Irrigation system improvement                         | Length of treatment  | feet              | 3380  | 0       | 3380    |
| 17070305 | Lower Crooked    | FALSE            | Non-crossing improvement                              | Number of treatments | diversion dam     | 0     | 1       | 1       |
| 17070305 | Lower Crooked    | FALSE            | Off-channel habitat                                   | Length of treatment  | feet              | 0     | 9800    | 9800    |
| 17070305 | Lower Crooked    | FALSE            | Off-channel habitat                                   | Number of treatments | alcove            | 0     | 2       | 2       |
| 17070305 | Lower Crooked    | FALSE            | Off-channel habitat                                   | Number of treatments | off-channel pond  | 0     | 2       | 2       |
| 17070305 | Lower Crooked    | FALSE            | Off-channel habitat                                   | Number of treatments | side channel      | 0     | 18      | 18      |



| HUC8     | Subbasin        | TMDL in Subbasin | Activity                                   | Treatment Metric     | Unit                         | Y2021 | Y2022  | Total  |
|----------|-----------------|------------------|--|----------------------|------------------------------|-------|--------|--------|
| 17070305 | Lower Crooked   | FALSE            | Off-channel livestock or wildlife watering | Number of treatments | watering location            | 1     | 2      | 3      |
| 17070305 | Lower Crooked   | FALSE            | Riparian fencing                           | Area treated         | acre                         | 0.0   | 2.0    | 2.0    |
| 17070305 | Lower Crooked   | FALSE            | Riparian fencing                           | Length of treatment  | mile                         | 0.00  | 0.13   | 0.13   |
| 17070305 | Lower Crooked   | FALSE            | Riparian invasive plant control            | Area treated         | acre                         | 0.0   | 0.1    | 0.1    |
| 17070305 | Lower Crooked   | FALSE            | Riparian invasive plant control            | Length of treatment  | mile                         | 0.00  | 0.10   | 0.10   |
| 17070305 | Lower Crooked   | FALSE            | Riparian tree planting                     | Area treated         | acre                         | 0.0   | 11.0   | 11.0   |
| 17070305 | Lower Crooked   | FALSE            | Riparian tree planting                     | Length of treatment  | mile                         | 0.00  | 1.00   | 1.00   |
| 17070305 | Lower Crooked   | FALSE            | Riparian vegetation planting               | Area treated         | acre                         | 0.0   | 11.0   | 11.0   |
| 17070305 | Lower Crooked   | FALSE            | Riparian vegetation planting               | Length of treatment  | mile                         | 0.00  | 1.00   | 1.00   |
| 17070305 | Lower Crooked   | FALSE            | Upland invasive plant control              | Area treated         | acre                         | 4.3   | 1241.3 | 1245.7 |
| 17070305 | Lower Crooked   | FALSE            | Upland vegetation management               | Area treated         | acre                         | 0.0   | 103.5  | 103.5  |
| 17070305 | Lower Crooked   | FALSE            | Upland vegetation planting                 | Area treated         | acre                         | 0.0   | 1268.7 | 1268.7 |
| 17070305 | Lower Crooked   | FALSE            | Water/sediment control basins              | Area treated         | acre                         | 0.0   | 1.2    | 1.2    |
| 17070305 | Lower Crooked   | FALSE            | Water/sediment control basins              | Number of treatments | water/sediment control basin | 0     | 17     | 17     |
| 17070305 | Lower Crooked   | FALSE            | Wetland restoration                        | Area treated         | acre                         | 0.0   | 3.0    | 3.0    |
| 17070305 | Lower Crooked   | FALSE            | Wetland vegetation planting                | Area treated         | acre                         | 0.0   | 3.0    | 3.0    |
| 17070306 | Lower Deschutes | FALSE            | Fish screening                             | Number of treatments | fish screen                  | 0     | 1      | 1      |
| 17070306 | Lower Deschutes | FALSE            | Irrigation system improvement              | Area treated         | acre                         | 0.0   | 703.2  | 703.2  |
| 17070306 | Lower Deschutes | FALSE            | Irrigation system improvement              | Length of treatment  | feet                         | 0     | 2760   | 2760   |
| 17070306 | Lower Deschutes | FALSE            | Non-crossing improvement                   | Number of treatments | diversion dam                | 0     | 1      | 1      |
| 17070306 | Lower Deschutes | FALSE            | Off-channel livestock or wildlife watering | Number of treatments | watering location            | 1     | 1      | 2      |

| HUC8     | Subbasin        | TMDL in Subbasin | Activity  | Treatment Metric     | Unit          | Y2021  | Y2022 | Total  |
|----------|-----------------|------------------|---|----------------------|---------------|--------|-------|--------|
| 17070306 | Lower Deschutes | FALSE            | Riparian invasive plant control                       | Area treated         | acre          | 147.0  | 0.0   | 147.0  |
| 17070306 | Lower Deschutes | FALSE            | Riparian invasive plant control                       | Length of treatment  | mile          | 38.06  | 0.00  | 38.06  |
| 17070306 | Lower Deschutes | FALSE            | Upland fencing  | Area treated         | acre          | 3390.0 | 640.0 | 4030.0 |
| 17070306 | Lower Deschutes | FALSE            | Upland fencing  | Length of treatment  | mile          | 1.50   | 0.74  | 2.24   |
| 17070306 | Lower Deschutes | FALSE            | Upland invasive plant control                         | Area treated         | acre          | 44.2   | 0.0   | 44.2   |
| 17070306 | Lower Deschutes | FALSE            | Upland vegetation management                          | Area treated         | acre          | 106.8  | 40.0  | 146.8  |
| 17070307 | Trout           | FALSE            | Channel alteration                                    | Length of treatment  | feet          | 5300   | 0     | 5300   |
| 17070307 | Trout           | FALSE            | Channel alteration                                    | Number of treatments | main channel  | 1      | 0     | 1      |
| 17070307 | Trout           | FALSE            | Crossing improvement                                  | Number of treatments | culvert       | 1      | 0     | 1      |
| 17070307 | Trout           | FALSE            | Crossing improvement                                  | Number of treatments | ford          | 1      | 0     | 1      |
| 17070307 | Trout           | FALSE            | Instream habitat (anchored): Structure placement      | Number of treatments | structure     | 47     | 0     | 47     |
| 17070307 | Trout           | FALSE            | Instream habitat (not anchored): Boulder placement    | Number of treatments | boulder       | 60     | 0     | 60     |
| 17070307 | Trout           | FALSE            | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log | 5      | 0     | 5      |
| 17070307 | Trout           | FALSE            | Instream habitat (not anchored): Large wood placement | Number of treatments | structure     | 4      | 0     | 4      |
| 17070307 | Trout           | FALSE            | Irrigation system improvement                         | Area treated         | acre          | 0.0    | 28.0  | 28.0   |
| 17070307 | Trout           | FALSE            | Livestock stream access/crossing created or improved  | Area treated         | acre          | 0.1    | 0.0   | 0.1    |
| 17070307 | Trout           | FALSE            | Livestock stream access/crossing created or improved  | Number of treatments | crossing      | 1      | 0     | 1      |

| HUC8     | Subbasin             | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022  | Total  |
|----------|----------------------|------------------|---|----------------------|-------------------|-------|--------|--------|
| 17070307 | Trout                | FALSE            | Off-channel habitat                                   | Number of treatments | off-channel pond  | 1     | 0      | 1      |
| 17070307 | Trout                | FALSE            | Riparian fencing                                      | Area treated         | acre              | 27.7  | 0.0    | 27.7   |
| 17070307 | Trout                | FALSE            | Riparian fencing                                      | Length of treatment  | mile              | 1.12  | 0.00   | 1.12   |
| 17070307 | Trout                | FALSE            | Riparian invasive plant control                       | Area treated         | acre              | 55.7  | 0.0    | 55.7   |
| 17070307 | Trout                | FALSE            | Riparian invasive plant control                       | Length of treatment  | mile              | 8.12  | 0.00   | 8.12   |
| 17070307 | Trout                | FALSE            | Riparian tree planting                                | Area treated         | acre              | 27.7  | 0.0    | 27.7   |
| 17070307 | Trout                | FALSE            | Riparian tree planting                                | Length of treatment  | mile              | 1.12  | 0.00   | 1.12   |
| 17070307 | Trout                | FALSE            | Riparian vegetation management                        | Area treated         | acre              | 27.7  | 0.0    | 27.7   |
| 17070307 | Trout                | FALSE            | Riparian vegetation management                        | Length of treatment  | mile              | 1.12  | 0.00   | 1.12   |
| 17070307 | Trout                | FALSE            | Riparian vegetation planting                          | Area treated         | acre              | 27.7  | 0.0    | 27.7   |
| 17070307 | Trout                | FALSE            | Riparian vegetation planting                          | Length of treatment  | mile              | 1.12  | 0.00   | 1.12   |
| 17070307 | Trout                | FALSE            | Upland invasive plant control                         | Area treated         | acre              | 340.0 | 6197.0 | 6537.0 |
| 17070307 | Trout                | FALSE            | Upland vegetation management                          | Area treated         | acre              | 100.0 | 72.5   | 172.5  |
| 17070307 | Trout                | FALSE            | Upland vegetation planting                            | Area treated         | acre              | 0.0   | 6197.0 | 6197.0 |
| 17080001 | Lower Columbia-Sandy | TRUE             | Instream habitat (anchored): Structure placement      | Number of treatments | structure         | 13    | 0      | 13     |
| 17080001 | Lower Columbia-Sandy | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 545   | 0      | 545    |
| 17080001 | Lower Columbia-Sandy | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log | 300   | 0      | 300    |
| 17080001 | Lower Columbia-Sandy | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 38    | 0      | 38     |

| HUC8     | Subbasin                  | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022 | Total |
|----------|---------------------------|------------------|---|----------------------|-------------------|-------|-------|-------|
| 17080001 | Lower Columbia-Sandy      | TRUE             | Off-channel habitat                                   | Length of treatment  | feet              | 8287  | 0     | 8287  |
| 17080001 | Lower Columbia-Sandy      | TRUE             | Off-channel habitat                                   | Number of treatments | off-channel pond  | 1     | 0     | 1     |
| 17080001 | Lower Columbia-Sandy      | TRUE             | Off-channel habitat                                   | Number of treatments | side channel      | 13    | 0     | 13    |
| 17080001 | Lower Columbia-Sandy      | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 3.0   | 0.0   | 3.0   |
| 17080001 | Lower Columbia-Sandy      | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 0.10  | 0.00  | 0.10  |
| 17080001 | Lower Columbia-Sandy      | TRUE             | Riparian tree planting                                | Area treated         | acre              | 2.0   | 0.0   | 2.0   |
| 17080001 | Lower Columbia-Sandy      | TRUE             | Riparian tree planting                                | Length of treatment  | mile              | 0.10  | 0.00  | 0.10  |
| 17080003 | Lower Columbia-Clatskanie | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 2.3   | 0.0   | 2.3   |
| 17080003 | Lower Columbia-Clatskanie | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 0.50  | 0.00  | 0.50  |
| 17080003 | Lower Columbia-Clatskanie | TRUE             | Riparian tree planting                                | Area treated         | acre              | 1.7   | 0.0   | 1.7   |
| 17080003 | Lower Columbia-Clatskanie | TRUE             | Riparian tree planting                                | Length of treatment  | mile              | 0.50  | 0.00  | 0.50  |
| 17080006 | Lower Columbia            | TRUE             | Crossing improvement                                  | Number of treatments | bridge            | 0     | 1     | 1     |
| 17080006 | Lower Columbia            | TRUE             | Estuarine invasive plant control                      | Area treated         | acre              | 5.0   | 0.0   | 5.0   |
| 17080006 | Lower Columbia            | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 15    | 298   | 313   |
| 17080006 | Lower Columbia            | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log | 0     | 26    | 26    |

| HUC8     | Subbasin               | TMDL in Subbasin | Activity  | Treatment Metric     | Unit      | Y2021 | Y2022 | Total  |
|----------|------------------------|------------------|---|----------------------|-----------|-------|-------|--------|
| 17080006 | Lower Columbia         | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure | 3     | 56    | 59     |
| 17080006 | Lower Columbia         | TRUE             | Riparian invasive plant control                       | Area treated         | acre      | 2.7   | 0.8   | 3.5    |
| 17080006 | Lower Columbia         | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile      | 1.32  | 0.24  | 1.56   |
| 17080006 | Lower Columbia         | TRUE             | Riparian tree planting                                | Area treated         | acre      | 1.0   | 16.7  | 17.7   |
| 17080006 | Lower Columbia         | TRUE             | Riparian tree planting                                | Length of treatment  | mile      | 0.22  | 1.50  | 1.72   |
| 17080006 | Lower Columbia         | TRUE             | Riparian vegetation planting                          | Area treated         | acre      | 1.9   | 17.5  | 19.4   |
| 17080006 | Lower Columbia         | TRUE             | Riparian vegetation planting                          | Length of treatment  | mile      | 0.31  | 1.74  | 2.05   |
| 17080006 | Lower Columbia         | TRUE             | Road decommission                                     | Length of treatment  | station   | 83.35 | 63.36 | 146.71 |
| 17080006 | Lower Columbia         | TRUE             | Upland invasive plant control                         | Area treated         | acre      | 108.8 | 5.0   | 113.8  |
| 17080006 | Lower Columbia         | TRUE             | Upland tree planting                                  | Area treated         | acre      | 0.0   | 1.5   | 1.5    |
| 17080006 | Lower Columbia         | TRUE             | Upland vegetation planting                            | Area treated         | acre      | 0.0   | 5.0   | 5.0    |
| 17080006 | Lower Columbia         | TRUE             | Wetland invasive plant control                        | Area treated         | acre      | 0.0   | 0.3   | 0.3    |
| 17080006 | Lower Columbia         | TRUE             | Wetland vegetation planting                           | Area treated         | acre      | 0.0   | 0.3   | 0.3    |
| 17090001 | Middle Fork Willamette | TRUE             | Riparian invasive plant control                       | Area treated         | acre      | 0.2   | 104.0 | 104.2  |
| 17090001 | Middle Fork Willamette | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile      | 0.10  | 1.25  | 1.35   |
| 17090001 | Middle Fork Willamette | TRUE             | Riparian tree planting                                | Area treated         | acre      | 0.0   | 104.0 | 104.0  |
| 17090001 | Middle Fork Willamette | TRUE             | Riparian tree planting                                | Length of treatment  | mile      | 0.00  | 1.25  | 1.25   |
| 17090001 | Middle Fork Willamette | TRUE             | Riparian vegetation management                        | Area treated         | acre      | 0.0   | 104.0 | 104.0  |
| 17090001 | Middle Fork Willamette | TRUE             | Riparian vegetation management                        | Length of treatment  | mile      | 0.00  | 1.25  | 1.25   |
| 17090001 | Middle Fork Willamette | TRUE             | Upland invasive plant control                         | Area treated         | acre      | 4.6   | 0.0   | 4.6    |
| 17090001 | Middle Fork Willamette | TRUE             | Upland vegetation planting                            | Area treated         | acre      | 4.6   | 36.0  | 40.6   |

| HUC8     | Subbasin               | TMDL in Subbasin | Activity                        | Treatment Metric     | Unit         | Y2021 | Y2022 | Total |
|----------|------------------------|------------------|---------------------------------|----------------------|--------------|-------|-------|-------|
| 17090001 | Middle Fork Willamette | TRUE             | Wetland vegetation planting     | Area treated         | acre         | 0.0   | 50.0  | 50.0  |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian fencing                | Area treated         | acre         | 0.0   | 5.0   | 5.0   |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian fencing                | Length of treatment  | mile         | 0.00  | 0.55  | 0.55  |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian invasive plant control | Area treated         | acre         | 0.0   | 33.1  | 33.1  |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian invasive plant control | Length of treatment  | mile         | 0.00  | 1.14  | 1.14  |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian tree planting          | Area treated         | acre         | 0.0   | 38.1  | 38.1  |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian tree planting          | Length of treatment  | mile         | 0.00  | 1.69  | 1.69  |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian vegetation planting    | Area treated         | acre         | 0.0   | 38.1  | 38.1  |
| 17090002 | Coast Fork Willamette  | TRUE             | Riparian vegetation planting    | Length of treatment  | mile         | 0.00  | 1.69  | 1.69  |
| 17090002 | Coast Fork Willamette  | TRUE             | Upland invasive plant control   | Area treated         | acre         | 0.0   | 5.0   | 5.0   |
| 17090002 | Coast Fork Willamette  | TRUE             | Upland vegetation management    | Area treated         | acre         | 0.0   | 5.0   | 5.0   |
| 17090002 | Coast Fork Willamette  | TRUE             | Upland vegetation planting      | Area treated         | acre         | 0.0   | 1.5   | 1.5   |
| 17090002 | Coast Fork Willamette  | TRUE             | Wetland vegetation planting     | Area treated         | acre         | 0.0   | 0.4   | 0.4   |
| 17090003 | Upper Willamette       | TRUE             | Bank stabilization              | Length of treatment  | mile         | 0.00  | 0.10  | 0.10  |
| 17090003 | Upper Willamette       | TRUE             | Channel alteration              | Length of treatment  | feet         | 0     | 7128  | 7128  |
| 17090003 | Upper Willamette       | TRUE             | Channel alteration              | Number of treatments | main channel | 0     | 2     | 2     |
| 17090003 | Upper Willamette       | TRUE             | Grazing management              | Area treated         | acre         | 0.0   | 55.0  | 55.0  |
| 17090003 | Upper Willamette       | TRUE             | Instream invasive plant control | Length of treatment  | mile         | 1.68  | 3.35  | 5.03  |
| 17090003 | Upper Willamette       | TRUE             | Nutrient/manure management      | Area treated         | acre         | 0.0   | 0.3   | 0.3   |
| 17090003 | Upper Willamette       | TRUE             | Riparian fencing                | Area treated         | acre         | 0.3   | 4.0   | 4.3   |
| 17090003 | Upper Willamette       | TRUE             | Riparian fencing                | Length of treatment  | mile         | 0.05  | 0.10  | 0.15  |
| 17090003 | Upper Willamette       | TRUE             | Riparian invasive plant control | Area treated         | acre         | 7.0   | 215.0 | 222.0 |

| HUC8     | Subbasin         | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022 | Total |
|----------|------------------|------------------|---|----------------------|-------------------|-------|-------|-------|
| 17090003 | Upper Willamette | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 0.45  | 1.29  | 1.74  |
| 17090003 | Upper Willamette | TRUE             | Riparian tree planting                                | Area treated         | acre              | 7.2   | 0.0   | 7.2   |
| 17090003 | Upper Willamette | TRUE             | Riparian tree planting                                | Length of treatment  | mile              | 0.49  | 0.00  | 0.49  |
| 17090003 | Upper Willamette | TRUE             | Riparian vegetation management                        | Number of treatments | site              | 1     | 0     | 1     |
| 17090003 | Upper Willamette | TRUE             | Riparian vegetation planting                          | Area treated         | acre              | 7.2   | 219.0 | 226.2 |
| 17090003 | Upper Willamette | TRUE             | Riparian vegetation planting                          | Length of treatment  | mile              | 0.49  | 1.39  | 1.88  |
| 17090003 | Upper Willamette | TRUE             | Sustainable stormwater management                     | Area treated         | acre              | 2.3   | 0.0   | 2.3   |
| 17090003 | Upper Willamette | TRUE             | Sustainable stormwater management                     | Number of treatments | each              | 1     | 0     | 1     |
| 17090003 | Upper Willamette | TRUE             | Upland erosion control                                | Area treated         | acre              | 0.0   | 0.3   | 0.3   |
| 17090003 | Upper Willamette | TRUE             | Upland invasive plant control                         | Area treated         | acre              | 2.0   | 55.0  | 57.0  |
| 17090003 | Upper Willamette | TRUE             | Upland vegetation management                          | Area treated         | acre              | 0.0   | 46.0  | 46.0  |
| 17090003 | Upper Willamette | TRUE             | Upland vegetation planting                            | Area treated         | acre              | 0.0   | 4.0   | 4.0   |
| 17090003 | Upper Willamette | TRUE             | Wetland improvement                                   | Area treated         | acre              | 0.0   | 50.0  | 50.0  |
| 17090003 | Upper Willamette | TRUE             | Wetland invasive plant control                        | Area treated         | acre              | 0.0   | 5.0   | 5.0   |
| 17090003 | Upper Willamette | TRUE             | Wetland vegetation planting                           | Area treated         | acre              | 0.0   | 1.5   | 1.5   |
| 17090004 | McKenzie         | TRUE             | Channel alteration                                    | Length of treatment  | feet              | 7867  | 0     | 7867  |
| 17090004 | McKenzie         | TRUE             | Channel alteration                                    | Number of treatments | main channel      | 1     | 0     | 1     |
| 17090004 | McKenzie         | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 580   | 0     | 580   |
| 17090004 | McKenzie         | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log | 1314  | 0     | 1314  |
| 17090004 | McKenzie         | TRUE             | Instream habitat (not anchored):                      | Number of treatments | structure         | 255   | 0     | 255   |

| HUC8     | Subbasin          | TMDL in Subbasin | Activity                        | Treatment Metric     | Unit         | Y2021  | Y2022 | Total  |
|----------|-------------------|------------------|---------------------------------|----------------------|--------------|--------|-------|--------|
|          |                   |                  | Large wood placement            |                      |              |        |       |        |
| 17090004 | McKenzie          | TRUE             | Upland erosion control          | Area treated         | acre         | 0.0    | 39.0  | 39.0   |
| 17090004 | McKenzie          | TRUE             | Upland erosion control          | Number of treatments | structure    | 0      | 15    | 15     |
| 17090005 | North Santiam     | TRUE             | Crossing improvement            | Length of treatment  | mile         | 0.00   | 0.03  | 0.03   |
| 17090005 | North Santiam     | TRUE             | Crossing improvement            | Number of treatments | culvert      | 0      | 2     | 2      |
| 17090005 | North Santiam     | TRUE             | Other wetland activity          | Area treated         | acre         | 0.0    | 6.5   | 6.5    |
| 17090005 | North Santiam     | TRUE             | Peak flow passage improvement   | Number of treatments | structure    | 57     | 6     | 63     |
| 17090005 | North Santiam     | TRUE             | Riparian invasive plant control | Area treated         | acre         | 26.0   | 0.0   | 26.0   |
| 17090005 | North Santiam     | TRUE             | Riparian invasive plant control | Length of treatment  | mile         | 0.40   | 0.00  | 0.40   |
| 17090005 | North Santiam     | TRUE             | Riparian vegetation planting    | Area treated         | acre         | 26.0   | 0.0   | 26.0   |
| 17090005 | North Santiam     | TRUE             | Riparian vegetation planting    | Length of treatment  | mile         | 0.40   | 0.00  | 0.40   |
| 17090005 | North Santiam     | TRUE             | Road stabilization              | Length of treatment  | station      | 1.00   | 0.00  | 1.00   |
| 17090005 | North Santiam     | TRUE             | Surface drainage improvement    | Length of treatment  | station      | 192.82 | 0.00  | 192.82 |
| 17090005 | North Santiam     | TRUE             | Surface drainage improvement    | Number of treatments | culvert      | 3      | 1     | 4      |
| 17090005 | North Santiam     | TRUE             | Surface drainage improvement    | Number of treatments | structure    | 1      | 0     | 1      |
| 17090005 | North Santiam     | TRUE             | Upland invasive plant control   | Area treated         | acre         | 0.0    | 6.0   | 6.0    |
| 17090005 | North Santiam     | TRUE             | Upland tree planting            | Area treated         | acre         | 0.0    | 6.0   | 6.0    |
| 17090005 | North Santiam     | TRUE             | Wetland invasive plant control  | Area treated         | acre         | 18.0   | 6.5   | 24.5   |
| 17090005 | North Santiam     | TRUE             | Wetland vegetation planting     | Area treated         | acre         | 0.0    | 6.5   | 6.5    |
| 17090007 | Middle Willamette | TRUE             | Channel alteration              | Length of treatment  | feet         | 528    | 0     | 528    |
| 17090007 | Middle Willamette | TRUE             | Channel alteration              | Number of treatments | main channel | 1      | 0     | 1      |
| 17090007 | Middle Willamette | TRUE             | Crossing improvement            | Number of treatments | culvert      | 0      | 1     | 1      |



| HUC8     | Subbasin          | TMDL in Subbasin | Activity  | Treatment Metric     | Unit          | Y2021 | Y2022 | Total |
|----------|-------------------|------------------|---|----------------------|---------------|-------|-------|-------|
| 17090007 | Middle Willamette | TRUE             | Instream habitat (anchored): Structure placement      | Number of treatments | structure     | 0     | 4     | 4     |
| 17090007 | Middle Willamette | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log | 0     | 150   | 150   |
| 17090007 | Middle Willamette | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure     | 0     | 30    | 30    |
| 17090007 | Middle Willamette | TRUE             | Instream invasive plant control                       | Length of treatment  | mile          | 1.00  | 0.00  | 1.00  |
| 17090007 | Middle Willamette | TRUE             | Nutrient/manure management                            | Area treated         | acre          | 0.0   | 0.1   | 0.1   |
| 17090007 | Middle Willamette | TRUE             | Nutrient/manure management                            | Number of treatments | structure     | 0     | 1     | 1     |
| 17090007 | Middle Willamette | TRUE             | Riparian invasive plant control                       | Area treated         | acre          | 25.0  | 18.5  | 43.5  |
| 17090007 | Middle Willamette | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile          | 0.53  | 0.52  | 1.05  |
| 17090007 | Middle Willamette | TRUE             | Riparian tree planting                                | Area treated         | acre          | 25.0  | 44.0  | 69.0  |
| 17090007 | Middle Willamette | TRUE             | Riparian tree planting                                | Length of treatment  | mile          | 0.53  | 0.50  | 1.03  |
| 17090007 | Middle Willamette | TRUE             | Riparian vegetation planting                          | Area treated         | acre          | 25.0  | 44.0  | 69.0  |
| 17090007 | Middle Willamette | TRUE             | Riparian vegetation planting                          | Length of treatment  | mile          | 0.53  | 0.50  | 1.03  |
| 17090007 | Middle Willamette | TRUE             | Upland invasive plant control                         | Area treated         | acre          | 13.5  | 32.0  | 45.5  |
| 17090007 | Middle Willamette | TRUE             | Upland vegetation management                          | Area treated         | acre          | 8.5   | 0.0   | 8.5   |
| 17090007 | Middle Willamette | TRUE             | Upland vegetation planting                            | Area treated         | acre          | 13.5  | 16.0  | 29.5  |
| 17090007 | Middle Willamette | TRUE             | Wetland invasive plant control                        | Area treated         | acre          | 36.5  | 0.0   | 36.5  |
| 17090007 | Middle Willamette | TRUE             | Wetland vegetation planting                           | Area treated         | acre          | 35.0  | 0.0   | 35.0  |
| 17090008 | Yamhill           | TRUE             | Crossing improvement                                  | Number of treatments | culvert       | 3     | 1     | 4     |
| 17090008 | Yamhill           | TRUE             | Irrigation system improvement                         | Area treated         | acre          | 3.3   | 0.0   | 3.3   |

| HUC8     | Subbasin        | TMDL in Subbasin | Activity                        | Treatment Metric     | Unit      | Y2021 | Y2022 | Total |
|----------|-----------------|------------------|---------------------------------|----------------------|-----------|-------|-------|-------|
| 17090008 | Yamhill         | TRUE             | Peak flow passage improvement   | Number of treatments | structure | 3     | 1     | 4     |
| 17090008 | Yamhill         | TRUE             | Riparian invasive plant control | Area treated         | acre      | 9.3   | 0.0   | 9.3   |
| 17090008 | Yamhill         | TRUE             | Riparian invasive plant control | Length of treatment  | mile      | 2.63  | 0.00  | 2.63  |
| 17090008 | Yamhill         | TRUE             | Riparian tree planting          | Area treated         | acre      | 2.0   | 0.0   | 2.0   |
| 17090008 | Yamhill         | TRUE             | Riparian tree planting          | Length of treatment  | mile      | 0.13  | 0.00  | 0.13  |
| 17090008 | Yamhill         | TRUE             | Riparian vegetation planting    | Area treated         | acre      | 2.0   | 0.0   | 2.0   |
| 17090008 | Yamhill         | TRUE             | Riparian vegetation planting    | Length of treatment  | mile      | 0.13  | 0.00  | 0.13  |
| 17090008 | Yamhill         | TRUE             | Upland invasive plant control   | Area treated         | acre      | 10.2  | 4.4   | 14.6  |
| 17090008 | Yamhill         | TRUE             | Upland tree planting            | Area treated         | acre      | 7.5   | 0.0   | 7.5   |
| 17090008 | Yamhill         | TRUE             | Upland vegetation planting      | Area treated         | acre      | 7.7   | 4.4   | 12.1  |
| 17090008 | Yamhill         | TRUE             | Wetland restoration             | Area treated         | acre      | 0.0   | 0.1   | 0.1   |
| 17090009 | Molalla-Pudding | TRUE             | Engineered structures           | Number of treatments | structure | 0     | 10    | 10    |
| 17090009 | Molalla-Pudding | TRUE             | Irrigation system improvement   | Area treated         | acre      | 0.0   | 102.1 | 102.1 |
| 17090009 | Molalla-Pudding | TRUE             | Peak flow passage improvement   | Number of treatments | structure | 20    | 0     | 20    |
| 17090009 | Molalla-Pudding | TRUE             | Surface drainage improvement    | Length of treatment  | station   | 24.31 | 0.00  | 24.31 |
| 17090009 | Molalla-Pudding | TRUE             | Surface drainage improvement    | Number of treatments | culvert   | 7     | 0     | 7     |
| 17090009 | Molalla-Pudding | TRUE             | Surface drainage improvement    | Number of treatments | structure | 2     | 0     | 2     |
| 17090010 | Tualatin        | TRUE             | Wetland improvement             | Area treated         | acre      | 0.0   | 149.0 | 149.0 |
| 17090010 | Tualatin        | TRUE             | Wetland invasive plant control  | Area treated         | acre      | 0.0   | 270.0 | 270.0 |
| 17090010 | Tualatin        | TRUE             | Wetland vegetation planting     | Area treated         | acre      | 0.0   | 270.0 | 270.0 |
| 17090011 | Clackamas       | TRUE             | Bank stabilization              | Length of treatment  | mile      | 0.02  | 0.00  | 0.02  |
| 17090011 | Clackamas       | TRUE             | Crossing improvement            | Number of treatments | culvert   | 3     | 0     | 3     |

| HUC8     | Subbasin  | TMDL in Subbasin | Activity  | Treatment Metric     | Unit              | Y2021 | Y2022 | Total |
|----------|-----------|------------------|---|----------------------|-------------------|-------|-------|-------|
| 17090011 | Clackamas | TRUE             | Instream habitat (anchored): Structure placement      | Number of treatments | structure         | 10    | 0     | 10    |
| 17090011 | Clackamas | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | key piece log     | 55    | 10    | 65    |
| 17090011 | Clackamas | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | non-key piece log | 32    | 32    | 64    |
| 17090011 | Clackamas | TRUE             | Instream habitat (not anchored): Large wood placement | Number of treatments | structure         | 7     | 10    | 17    |
| 17090011 | Clackamas | TRUE             | Off-channel habitat                                   | Length of treatment  | feet              | 1700  | 3975  | 5675  |
| 17090011 | Clackamas | TRUE             | Off-channel habitat                                   | Number of treatments | side channel      | 1     | 5     | 6     |
| 17090011 | Clackamas | TRUE             | Riparian invasive plant control                       | Area treated         | acre              | 5.0   | 1.3   | 6.3   |
| 17090011 | Clackamas | TRUE             | Riparian invasive plant control                       | Length of treatment  | mile              | 0.42  | 0.80  | 1.22  |
| 17090011 | Clackamas | TRUE             | Riparian tree planting                                | Area treated         | acre              | 5.0   | 1.3   | 6.3   |
| 17090011 | Clackamas | TRUE             | Riparian tree planting                                | Length of treatment  | mile              | 0.42  | 0.80  | 1.22  |

## Contact

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Oregon Department of Environmental Quality

# Oregon Nonpoint Source Pollution Program Annual Report for 2023

## Appendix B: Detailed Metric Information for Action 319-2

### Actions Defined by the 2023 Nonpoint Source Management Plan:

- 319-2. Solicit and select 319 projects that support priorities.
- 319-2-M2. Annually, 100% of funded projects demonstrate progress implementing project objectives.
- 319-2-R6. Description of each open 319 project including Project Name, Agreement Number, Grant Recipient, and a project description that includes identification of the project objectives. Reported annually.
- 319-2-R7. Description 319 project activities or outputs that occurred or were reported to DEQ during the reporting period. Reported annually.

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| Project Name  | Agreement Number | Grant Recipient                                     | Satisfactory Progress | Project Description   | 319 Total Project Grant Funds | Project Activities or Outputs that Occurred During 2023   | Performance Report |
|---|------------------|---|-----------------------|---|-------------------------------|---|--------------------|
| Upper Klamath and Lost subbasins Stewardship Agreement Planning Efforts | 178-21           | Klamath Basin Water Users Protection Association    | No                    | The Klamath Basin Water Users Protection Association (KWUA) will work together with irrigation districts, The Bureau of Reclamation, U.S. Fish and Wildlife Service, DEQ, and NCWQCB to draft the Upper Klamath and Lost River Subbasins TMDL Stewardship Plan that will be reviewed and adopted by the stakeholders. The Stewardship Work Group will create a comprehensive implementation plan that will address the Upper Klamath and Lost River Subbasins Nutrient and Temperature TMDLs. KWUA will coordinate planning sessions twice per month for the Upper Klamath and Lost River Subbasins TMDL Stewardship Plan and ensure the representation of interested stakeholders. KWUA will communicate efforts to the various participants and act as a liaison between districts and other entities interested in being part of the implementation plan. KWUA will work closely with DEQ and NCWQCB during the planning process and communicate information between parties in between quarterly planning sessions. | \$29,470.00                   | The Klamath Water Users Protective Association was unable to progress with the project as dam removal issues and events took priority. The project was closed with only \$1,117 of \$29,470 project funds spent.  | Yes                |
| Down and Dirty in Eastern Oregon  | 059-22           | Malheur County Soil and Water Conservation District | Yes                   | The Malheur Soil and Water Conservation District will conduct water quality monitoring at 14 sites throughout the Malheur and Owyhee Basins. Installation of continuous discharge monitoring sites at 11 locations will be completed, and water quality samples will be collected by project partners. Discharge will be used to calculate pollutant loads at the monitoring sites. Data collected from this project will be analyzed and compared to previously collected data and reports. The primary objectives of this project are to collect and analyze water quality and quantity data to report progress to agricultural producers and regulatory agencies and to identify and prioritize locations for future restoration efforts.  | \$24,200.00                   | The Malheur Soil and Water Conservation District was not awarded an additional grant they were depending on to complete the project as planned. Due to this decrease in funds the SWCD modified their 319 grant agreement to start the project later (2024) and decrease the number of sites from 11 to 10. | Yes                |
| Upper South Fork John Day Bioassessment                                 | 003-21           | South Fork John Day Watershed Council               | Yes                   | The purpose of the Upper South Fork John Day Bioassessment is to determine the effectiveness of the rapid riparian revegetation effort completed on the Upper South Fork John Day River, by repeating the Upper South Fork John Day Bioassessment that was previously performed in 2001, 2004, 2006, and 2017. After developing a Quality Assurance Project Plan (QAPP), temperature loggers will be deployed, and macroinvertebrate sampling and analysis will occur. Once sampling has concluded a hired contractor will use the macroinvertebrate model PREDATOR to characterize the collected samples and compile results into a final report to be shared with project partners.   | \$23,969.00                   | The SFJDWC completed their sampling, hired a contractor, and used modeling to characterize samples, those results were then compiled into a final report and were shared with project partners. They were able to spend 22,886.92 of the total project funds.   | Yes                |

| Project Name   | Agreement Number | Grant Recipient                     | Satisfactory Progress | Project Description  | 319 Total Project Grant Funds | Project Activities or Outputs that Occurred During 2023  | Performance Report |
|--|------------------|-------------------------------------|-----------------------|--|-------------------------------|--|--------------------|
| Remote Sensing and source water inventory for the South Fork Walla Walla River | 085-21           | Walla Walla Basin Watershed Council | Yes                   | <p>The Remote Sensing and Source Water Inventory for the South Fork Walla Walla River project will protect groundwater and essential aquatic habitat by using LiDAR technology to fill the data gap about the current status of water sources feeding the Walla Walla River. The data will be used by project partners to develop a strategy for protecting watershed functions relating to natural basalt aquifer recharge, flow, and water temperature in the upper watershed. After a Quality Assurance Project Plan is submitted and approved, all available source water data will be compiled and reviewed. After acquiring LiDAR for the Upper and Middle South Fork Walla Walla River HUC-6 units, a hydrologic map of the watershed will be developed, and an inventory of potential and existing spring input locations will be completed. The last component of this project is to collect water samples for isotope and tritium analysis by USGS, once completed the findings will be summarized in a written report and community outreach will be conducted.</p>   | \$17,800.00                   | The project was completed and all project goals (inventory of springs in the project area, collection of LiDAR data, a hydrologic map showing springs and streams, water dating using stable isotope analysis, and community outreach about water supply and conservation) were met. WWBWC spent \$17,331.73 of the total agreement amount, which was \$17,800.00. Match funds from other sources totaled \$11,908.63.   | Yes                |
| John Day River Basin Unmanned Aerial Vehicle Vegetation Monitoring             | 004-21           | Blue Mountain Land Trust            | Yes                   | <p>The John Day River Basin Unmanned Aerial Vehicle Vegetation Monitoring project proposes to use unmanned aerial vehicles (UAVs) equipped with multispectral sensors to continuously monitor riparian vegetation throughout the John Day River Basin. Gilliam Soil and Water Conservation District, in partnership with Oregon State University, is developing a procedure for continuous monitoring of riparian vegetation, including a protocol for both planning the flight mission and processing images. Partners will use this protocol to gather baseline data throughout the basin on riparian vegetation cover. This data will enable partners to monitor restoration efforts, inform future restoration plans, and determine best management practices. Staff will be trained and licensed to fly UAVs in accordance with Federal Aviation Administration (FAA) licensing requirements. In conjunction with Project Partners, the UAV will be utilized for the collection of basin-wide vegetation baseline data on the sites of planned restoration projects in their focus geographies, as well as for monitoring of restoration projects after project implementation. In conjunction with Project Partners, staff will coordinate with other natural resource organizations working in the John Day Basin to employ the vegetation monitoring protocol on other restoration projects throughout the basin. Data sharing will be coordinated with Gilliam SWCD and the John Day Basin Partnership to identify areas in need of improved restoration practices. The data collected between all project partners will then be analyzed and cataloged and accessible to all project partners in a user friendly format.</p> | \$26,510.00                   | <p>partners were trained in the use of and purchased UAVs, partners attended virtual trainings and discussions on best practices for operating and managing drones for restoration projects in the field. The group also attended in-person trainings in the John Day Basin with other practitioners. BMLT was unable to achieve its goal of purchasing a UAV and licensing its staff. BMLT attended trainings and participated in calls and discussions about the project and goals. Project partners helped organizations develop drone policies for utilizing UAV monitoring methods and equipment on projects. At the completion of this grant, the Project partners spent \$12,002.78 in project costs of the \$26,510 grant amount. Project funds were spent on partner FAA testing fees, the purchase of UAVs for baseline data collection, training, and staff time. Project partners contributed \$10,818.93 or a 90% in in-kind match to this project.</p> | Yes                |
| Walla Walla Basin Water Quality Education & Outreach                           | 089-21           | Walla Walla Basin Watershed Council | Yes                   | <p>The Walla Walla Basin Water Quality Education and Outreach project will support the Walla Walla Basin Watershed Foundation's goal to improve audience understanding of water quality problems in surface and ground water and how protection and restoration efforts can aid in restoring healthy hydrological and ecological systems. With a collection of lectures and hands-on educational experiences, the program reaches 600+ students and 100+ adults each year in the Umatilla and Walla Walla Basins, largely in the Milton-Freewater area, but also various other locations, including Athena and Walla Walla. Many of the educational activities address human-related stream heating associated with flow diminution and channel manipulation, including loss of riparian vegetation. Other water quality, human-caused impairments included in the 303(d) of the Clean Water Act are addressed, including sediment, nitrate, ammonia, bacteria, pesticides, and others. Both surface and</p>   | \$11,990.00                   | This project was completed and was able to reach over 1000 students and hundreds of additional community members with educational events and other outreach efforts during the project period. The many project activities were focused on improving audience understanding of water quality problems in surface and ground water and how protection and restoration efforts can aid in restoring healthy hydrological and ecological systems. With a collection of learning and doing educational experiences, the program provided over 80 activities for the communities in the Umatilla and Walla Walla Basins, largely in the Milton-Freewater area, but also various other locations, including activities in the cities of Athena and Walla Walla.  | Yes                |



| Project Name   | Agreement Number | Grant Recipient  | Satisfactory Progress | Project Description  | 319 Total Project Grant Funds | Project Activities or Outputs that Occurred During 2023  | Performance Report |
|--|------------------|--|-----------------------|--|-------------------------------|--|--------------------|
|  |                  |  |                       | groundwater resources are addressed, including the interconnectedness of the systems. To achieve the educational goals of improving awareness and understanding of the related issues, over 20 lessons and activities for both youth and adults are coordinated.   |                               | At close of project all \$11,990 of NPS funds were spent and over \$8,000 of non-federal match, as well as significant other funding was used to implement the project.  |                    |
| Upper Willow Creek Basin BMPs Program  | 086-21           | Morrow Soil and Water Conservation District            | Yes                   | The Upper Willow Creek Basin Best Management Practices (BMPs) Program aims to reduce heat pollution in the Upper Willow Creek watershed by implementing a cost-sharing program for private agricultural landowners to install BMPs. A major nonpoint source of water quality impairment in the Willow Creek watershed is heat input that results in high water temperatures. Temperature increases may be caused by both natural and anthropogenic events resulting in vegetation removal, low seasonal stream flows, changes in channel morphology, and alteration of the floodplain. Project goals include the reduction of instream water temperatures and agricultural nutrient inputs through the development of best management practices such as the development of riparian buffer zones and off stream stock watering areas.  | \$14,915.00                   | The Morrow SWCD successfully entered into an agreement with one landowner to complete a fencing project on stock pond to keep cattle out and reduce possible pollution to the river from potential runoff.   | Yes                |
| Walla Walla River Forks Floodplain Reconnection and in-stream Enhancement Implementation               | 055-22           | Confederated Tribes of the Umatilla Indian Reservation | Yes                   | The Walla Walla River Forks project, located at the confluence of the North and South Fork Walla Walla Rivers, involves reactivating floodplain, improving fish passage and in-stream habitat complexity, and restoring historic river channel. Implementation of this project will improve habitat for native fish species such as bull trout ( <i>Salvelinus confluentus</i> ), Mid-Columbia steelhead ( <i>Oncorhynchus mykiss</i> ), Mid-Columbia spring Chinook ( <i>O. tshawytscha</i> ), and interior redband/rainbow trout ( <i>O. mykiss</i> ), while benefiting natural channel morphology and in-stream processes. This restoration effort aims to improve water quality and quantity, geomorphology, hydrological connectivity, riparian vegetation, and aquatic biota. This project supports the proposed management strategies outlined in the Walla Walla Subbasin Stream Temperature Total Maximum Daily Load and Water Quality Management Plan (ODEQ, 2005). Specifically, the project will increase river shading, floodplain area, sinuosity, and hyporheic exchange. Implementation activities include riparian buffer protection and enhancement, instream flow augmentation, erosion control, large wood placement, and channel restoration. The primary project objective is to enhance habitat for native fish and wildlife by restoring ecosystem function throughout the site. | \$62,651.00                   | The Confederated Tribes of the Umatilla Indian Reservation have removed 850 feet of existing levee to improve connectivity with relic side channel and floodplain habitat, enhanced 2250 feet of off-channel habitat and 4.9 acres of floodplain habitat, installed 94 large wood habitat structures, made improvements on irrigation diversions, and enhanced 2 acres of riparian habitat by installing native plants and native seed mixes.                    | Yes                |
| Bacteria, Continuous Temperature, and Pesticide Monitoring in Surface Waters in the Long Tom Watershed | 094-21           | Long Tom Watershed Council                             | Yes                   | The Long Tom Watershed Council conducted monitoring, education, and outreach within the Long Tom subbasin. Primary objectives of this project included (1) gathering high quality data on temperature, E. coli, and pesticides in tributaries of the Long Tom River including Bear, Ferguson, and Amazon Creeks, and (2) using the best available information (including recent monitoring data collected through this project) to perform outreach in priority areas and develop water quality improvement projects.  | \$42,977.00                   | The Long Tom Watershed Council continued to collect measurements of E. coli, turbidity, temperature, and pesticides throughout the watershed. Three site visits were completed in 2023 during which staff provided information and technical assistance to landowners on or near prioritized stream reaches. Two projects identified as part of this grant have proceeded with restoration projects in 2023 utilizing a variety of funding sources. The Long Tom | Yes                |

| Project Name  | Agreement Number | Grant Recipient                 | Satisfactory Progress | Project Description   | 319 Total Project Grant Funds | Project Activities or Outputs that Occurred During 2023   | Performance Report |
|---|------------------|---------------------------------|-----------------------|---|-------------------------------|---|--------------------|
| Regional Stormwater Mapping collaborative in Douglas County | 090-23           | City of Winston                 | yes                   | This collaborative project helps 10 Douglas County cities develop modern maps of key stormwater infrastructure. The maps will be incorporated into Douglas County's regional stormwater Geographic Information Systems (GIS) mapping system. Project funding will be used to hire an experienced contractor to obtain field and survey data and to create the maps. Match support will be provided in the form of in-kind technical assistance from participating cities and Douglas County.  | \$24,000.00                   | Watershed Council collaborated with the Upper Willamette Soil and Water Conservation District and the Working Lands Program to host a grant culminating event through which to share lessons from the monitoring data as well as opportunities available to land managers interested in helping to improve water quality on their lands. The City of Winston contracted a local women-owned business to map existing storm drain infrastructure for DMAs in the Umpqua Basin including Yoncalla, Drain, Oakland, Canyonville, Elkton and Glendale. The contractor completed field surveys and data collection including locations of storm structures, depth measurements of catch basins, inverts, and the size and type of pipes entering catch basins. Douglas County developed an online mapping platform to store and publicly share geospatial stormwater data. | Yes                |
| Benson Creek Wetland Restoration                            | 063-23           | Tenmile Lakes Basin Partnership | yes                   | In the Tenmile Lakes Watershed, wetlands located immediately upstream of the lake have been simplified through stream channelization. Historically, wetlands are currently managed for agricultural use. Water quality indicators include total suspended solids, sediment accrual rates, and total phosphorus. Because water quality factors that affect weed and algal growth are interrelated, the TMDL measures rely on reducing sediment (phosphorus) delivery to the Tenmile Lakes. The "Wetland Scenario" reveals that restoring wetlands adjacent to the Lakes for a distance of 1000 feet will result in a 47% decrease in water impairments. To achieve load allocations, the Recipient, in cooperation with Lone Rock Timber, will utilize 319 Grant funding to construct and restore an engineered wetland on 16 acres of lower Benson Creek (The Benson Creek Wetland Restoration Project). Restoring a wetland in Benson Creek will help achieve attainment of pollutants by reestablishing the buffering functions of this historic wetland. Effectiveness of this project will be monitored by the Recipient and Confederated Tribes of the Lower Umpqua and Siuslaw Indians. Match support will be provided by the Recipient, OWEB restoration grant funds, the Tenmile Lakes Basin Partnership, Lone Rock Timber, ODFW, Wild Rivers Land Trust, Coos County, and DSL. | \$35,860.00                   | The Tenmile Lakes Partnership purchased 1,000 ft of livestock exclusion fencing materials. Project implementation was delayed due to wet conditions limiting site access and unforeseen permitting requirements. Project materials are being stored offsite including the livestock exclusion fence and native plants. The project delay resulted in additional time to collect species of native plants and more consultations with the Confederate Tribes of Coos, Lower Umpqua, and Siuslaw Indians. Installation is scheduled to begin in July 2024.  | Yes                |
| Johnson Creek-Gresham Riparian Reforestation                | 022-23           | Johnson Creek Watershed Council | Yes                   | The goal of this project is to convert the vegetative overstory of riparian area on four (4) properties consisting of a 1.6 acre public property and three private parcels totaling one (1) acre from the existing Himalayan blackberry-dominated condition to one composed of native trees and shrubs. These properties border Johnson Creek in Gresham and Johnson Creek is listed as impaired for temperature under section 303(d) of the Clean Water Act. Management objectives for stream temperature are contained within the Lower Willamette Total Maximum Daily Load (TMDL).   | \$20,950.00                   | Continued progress on removal of invasives and installation of native plants  | Yes                |



| Project Name                                      | Agreement Number | Grant Recipient                 | Satisfactory Progress | Project Description  | 319 Total Project Grant Funds | Project Activities or Outputs that Occurred During 2023   | Performance Report |
|---|------------------|---------------------------------|-----------------------|--|-------------------------------|---|--------------------|
| Foster Place/Brookside-Johnson Creek Revegetation | 100-23           | Johnson Creek Watershed Council | Yes                   | This project will occur on 3.55 acres of land spanning parts of four privately-owned tax lots, encompassing over 1,000 linear feet of Johnson Creek (including 110' on the south bank; see map). These parcels have significant forest canopy, but it is threatened by English ivy ( <i>Hedera helix</i> ), Armenian blackberry ( <i>Rubus Bifrons</i> ), and other problem understory weeds. The property on the south bank of the creek, as well as the large lot opposite, lack canopy along the banks owing to persistent weeds (blackberry, reed canary grass, etc.).   | \$15,000.00                   | Continued progress on removal of invasives and installation of native plants  | Yes                |
| Healthy Industrial Lands Initiative               | in progress      | in progress                     | NA                    | Land-use in the Columbia Sloughs managed floodplain is primarily commercial and industrial. Property owners don't have the understanding, funds and/or interest to manage their riparian areas for watershed health. This results in significant degradation surrounding riparian areas, with little natural resource investment by landowners. Our Stewardship programs Healthy Industrial Lands Initiative (HILI) works with these landowners to help manage and improve their riparian areas. The HILI was developed by a steering committee made up of diverse stakeholders, with representatives from government organizations, businesses, landowners, and community groups. Thus far, the HILI has largely been an outreach campaign geared to learning what the incentives and barriers are to private industrial property owners investing in nature-based solutions for stormwater management and native habitat enhancements in the Columbia Sloughs floodplain. Through this project, CSWC has spoken with hundreds of landowners to discuss ways to partner for a cleaner and healthier Columbia Slough and has led to an ever-growing portfolio of sites with willing landowners that have high-value opportunities for water quality enhancement work. The Council has created a prioritization map that helps identify properties for restoration work. The prioritization map looks for properties adjacent to the Columbia Slough or its upstream water sources that have low canopy over permeable surfaces (i.e. high chance for riparian tree planting). The map also considers proximity to existing CSWC restoration sites or natural areas, mitigation sites or parks to increase habitat connectivity across the watershed. This program helps the Council provide critical restoration projects on lands that are usually out of reach for conservation, developing a new model for how restoration projects are carried out in a highly industrialized watershed. The goal of this project is to conduct habitat restoration work that will enhance riparian forest buffers along the Columbia Slough on private properties that the Council has made contact through the HILI. These efforts will increase shade on the waterway through invasive species removal and native plant installation, which in turn improves the overall water quality within the Slough. It will also protect existing canopy through English ivy control and removal, and create resilient, self-sustaining landscapes. | \$29,400.00                   | NA  | Yes                |
| Northwest Oregon Restoration Partnership 2019     | 152-20           | Tillamook Estuary Partnership   | Yes                   | The NW Oregon Restoration Partnership is an ongoing project that supplies the only source of locally adapted, riparian-ready native plants on the North and central Oregon coast by partnering with and employing Oregon Youth Authority youth crew  | \$24,406.00                   | This agreement supported 3,269 hours of employment to the Oregon Youth Authority youth crew between February 2022 and May 2023. This labor contributed to growing and distributing over 54,000 genetically appropriate plants to restoration projects on the North and Central coasts of Oregon, which were planted along 5.5 miles of stream and | Yes                |

| Project Name  | Agreement Number | Grant Recipient               | Satisfactory Progress   | Project Description   | 319 Total Project Grant Funds   | Project Activities or Outputs that Occurred During 2023  | Performance Report |
|---|------------------|-------------------------------|---|---|---|--|--------------------|
|   |                  |                               |   |   |   | 127 acres of riparian land. Additionally, the youth propagated 77,700 plants during this period, which will be distributed over the course of the next two to three years.   |                    |
| 2019 Stream Enhancement and Restoration                             | 180-20           | Tillamook County SWCD         | Yes, though due to issues out of their control, \$24797.89 was unspent at close of project. We hope to be able to re-obligate it to the applicant to finish out the work. | The Tillamook County SWCD Stream Riparian Enhancement and Restoration project aimed to restore riparian function to streams and river within Tillamook County through the recruitment and implementations of volunteer riparian restoration on agriculture properties.  | \$6,581.11  | The Recipient cleared non-native vegetation along approximately 2.87 miles of streamside, installed livestock fencing on 3 projects with an estimated 8,200 linear feet of riparian area, and constructed off-channel watering facilities where needed, in preparation for partners to replant the areas with native vegetation. The Project provides shade to abate excessive stream temperature, a vegetated buffer to filter nutrients, bacteria, and sediment, as well as stabilizes stream banks. | Yes                |
| Backyard Planting Program 2020                                      | 090-21-01A       | Tillamook Estuary Partnership | Yes   | TEP's Backyard Planting Program (BYPP) aims to facilitate improvements in water quality and riparian function through the control of non-native vegetation and the establishment of native trees and shrubs within riparian areas of the Tillamook Bay, Nehalem River, and Nestucca River watersheds.   | \$28,429.00   | Still waiting on final report  | Yes                |
| Nestucca, Neskowin and Sand Lake Basin Riparian Improvement Project | 092-21           | Nestucca-Neskowin WC          | Yes   | The Nestucca, Neskowin, & Sand Lake Watershed Council's (NNSLWC) Riparian Improvement Project was undertaken to improve water quality and riparian function through the control of non-native vegetation and the establishment of native trees and shrubs within riparian areas of the NNSLWC watersheds. NNSLWC partners with the Tillamook SWCD to provide riparian fencing and off-channel watering where necessary. | \$18,179.00   | Between May 24, 2021, and June 30, 2023, these grant funds supported riparian planting project management, and crew equipment and labor for: prep of 4 sites, plantings along 0.95 miles of stream frontage, and maintenance plantings along 2.7+ miles of sites from previous years. Project management included preparation of planting site layouts, crew management, and 2023 landowner/project recruitment.   | Yes                |
| Northwest Oregon Restoration Partnership 2021                       | 072-23           | Tillamook Estuary Partnership | Yes   | The NW Oregon Restoration Partnership is an ongoing project that supplies the only source of locally adapted, riparian-ready native plants on the North and central Oregon coast by partnering with and employing Oregon Youth Authority youth crew   | \$37,388.00   | No accounting of activities completed in 2023, as Exhibit E isn't due until 6/30/24.   | Yes                |
| Reforestation of Humbug Creek                                       | 073-23-A1        | Upper Nehalem WC              | No  |   |   | No activity reported since GA was signed   | Yes                |
| Nestucca, Neskowin and Sand Lake Basin Riparian Improvement Project | 080-23           | Nestucca-Neskowin WC          | Yes   | Due to capacity issues, this info was not able to be collected at this time   | Due to capacity issues, this info was not able to be collected at this time | Due to capacity issues, this info was not able to be collected at this time  | Yes                |

| Project Name   | Agreement Number | Grant Recipient                     | Satisfactory Progress | Project Description   | 319 Total Project Grant Funds   | Project Activities or Outputs that Occurred During 2023  | Performance Report |
|--|------------------|-------------------------------------|-----------------------|---|---|--|--------------------|
| Backyard Planting Program 2022   | 002-24           | Tillamook Estuary Partnership       | Yes                   | TEP's Backyard Planting Program (BYPP) aims to facilitate improvements in water quality and riparian function through the control of non-native vegetation and the establishment of native trees and shrubs within riparian areas of the Tillamook Bay, Nehalem River, and Nestucca River watersheds. | Due to capacity issues, this info was not able to be collected at this time | Due to capacity issues, this info was not able to be collected at this time  | Yes                |
| Northwest Oregon Restoration Partnership 2022  | 003-24           | Tillamook Estuary Partnership       | Yes                   | The NW Oregon Restoration Partnership is an ongoing project that supplies the only source of locally adapted, riparian-ready native plants on the North and central Oregon coast by partnering with and employing Oregon Youth Authority youth crew   | \$33,000.00   | No accounting of activities completed in 2023, as Exhibit E isn't due until 6/30/24, though through invoices the 319 program has paid for 1042 hours of OYA youth crew labor, accounting for about 1/4 of their contracted amount in 2023.   | Yes                |
| Siletz Watershed BMP Landowner Engagement Phase #2 (126-20), amended                         | 126-20           | Lincoln SWCD                        | Yes                   | Ag BMP project development; stakeholders' involvement/information   | \$23,353.00   | 319 funds added to grant Agreement in subsequent grant cycle; 319 funds used in construction of an agricultural livestock heavy use area (using NRCS funds & local match)  | Yes                |
| South Umpqua NPS Turbidity Assessment Phase #2 (123-20)                                      | 123-20           | Partnership of Umpqua Rivers        | Yes                   | watershed assessment  | \$39,640.00   | During 2022, the Partnership for Umpqua Rivers (PUR) used 319 grant funds to collect monthly grab sample monitoring data at approximately 65 locations per month in both the North and South Umpqua watersheds. Grab sample data parameters collected at each monitoring location include temperature, conductivity, pH, dissolved oxygen, turbidity, phycocyanin, nitrate, and E. coli (at select sites based on need). 319 grant funds were used to purchase the nitrate and phycocyanin probes that are now used regularly in monitoring efforts throughout the North and South Umpqua Basins.<br>The overarching goal of the full project, which was only partially funded, was to test the capability to estimate shade on channels and other waterbodies via remote sensing, both with and without lidar data availability. The test results would then be used to determine a viable strategy for statewide monitoring of riparian vegetation condition, focusing on developing a repeatable, cost-effective method for assessment of progress toward achieving TMDL temperature goals. A sub-goal of the first phase of the project was to develop a simple riparian vegetation classification for use in an operational system for state and transition modeling in riparian areas. INR and Oregon DEQ mutually decided this goal was better postponed until a later phase of the project, and focused attention on developing the sample design and field protocol for ground-truth data to support the main goal. Goals that had been set for the second phase, which was not funded, included refining methods of optical-based mapping of canopy cover and vegetation height, and testing methods for mapping change in shade, cover, or height. These goals were not attempted as the second phase was | Yes                |
| Monitoring riparian conditions via Remote Sensing to support Statewide implementation of WBP | 95-21            | PSU, Institute of Natural Resources | Yes                   | Technical assistance modeling / statewide monitoring  | \$42,796.00   |  | Yes                |

| Project Name | Agreement Number | Grant Recipient | Satisfactory Progress | Project Description | 319 Total Project Grant Funds | Project Activities or Outputs that Occurred During 2023 | Performance Report |
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not funded; however, we have produced preliminary mapping results for both lidar-based and optical imagery-based scenarios.

**Contact**

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